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October 9, 2007

Ex Parte Filing

Marlene Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
12th Street Lobby, Room TW-A325
Washington, D.C. 20554

Re: *Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service*, WT Docket No. 01-289

Dear Ms. Dortch:

On October 5, 2007, Jean-Paul Girardin and Marie Bodman, of Breitling, and I met with Scot Stone, Jeffrey Tobias, and James A. Shaffer of the Wireless Telecommunications Bureau to discuss the continued role of the Emergency watch in search-and-rescue operations and to provide a technical demonstration. The substance of our presentation is summarized in my letter of September 28, 2007, in this docket. I have also attached a brochure describing the Emergency and records of regulatory approvals in other jurisdictions. (Please note that I have omitted both the patents and the FCC approvals from the attached materials.)

This documents if being filed electronically in compliance with 47 C.F.R. § 1.1206(a)(2) to be included in the record of these proceedings. If you have any questions concerning this matter, please contact me at (202) 326-7921.

Sincerely,

/s/ Aaron M. Panner
Aaron M. Panner

cc: Scot Stone
Jeffrey Tobias
James A. Shaffer

Enclosures

EMERGENCY



BY

BREITLING



BREITLING



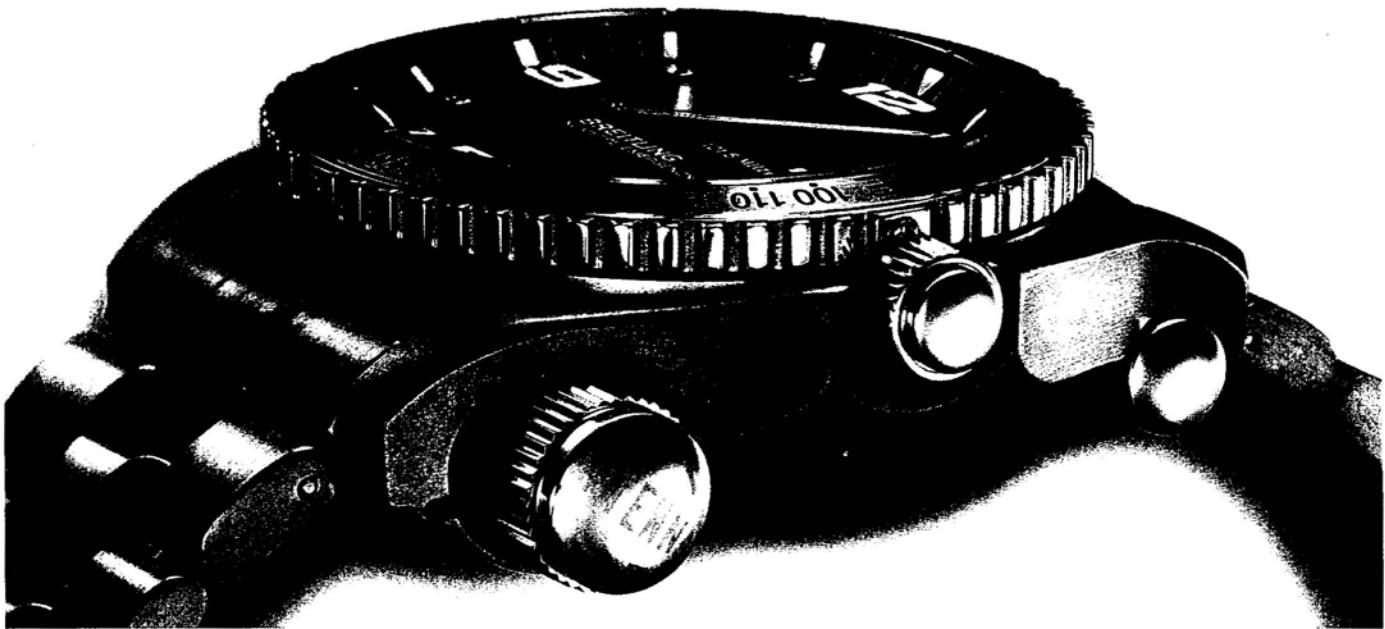
A survival instrument on the wrist. Safety. Performance. Innovation. BREITLING has achieved an unprecedented technological feat in creating the EMERGENCY, the first multi-function chronograph equipped with a microtransmitter broadcasting on the international aviation distress frequency. A genuine survival instrument on the wrist, activated by pulling out the integrated antenna. A masterpiece of miniaturization developed after several years of close cooperation with Dassault Electronique. Available in two versions – EMERGENCY and EMERGENCY MISSION – this high-wrist instrument has become synonymous with safety and reliability for pilots the world over.

EMERGENCY

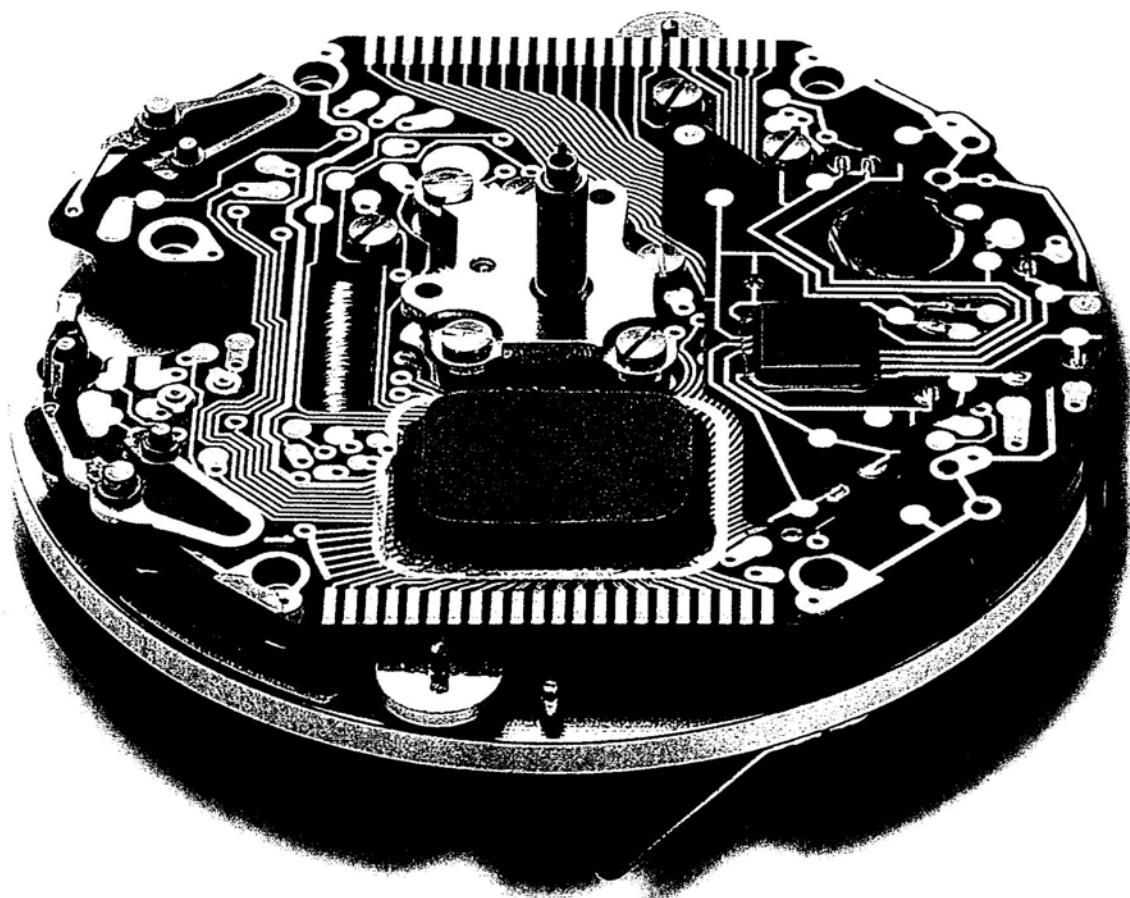
EMERGENCY



EMERGENCY
MISSION



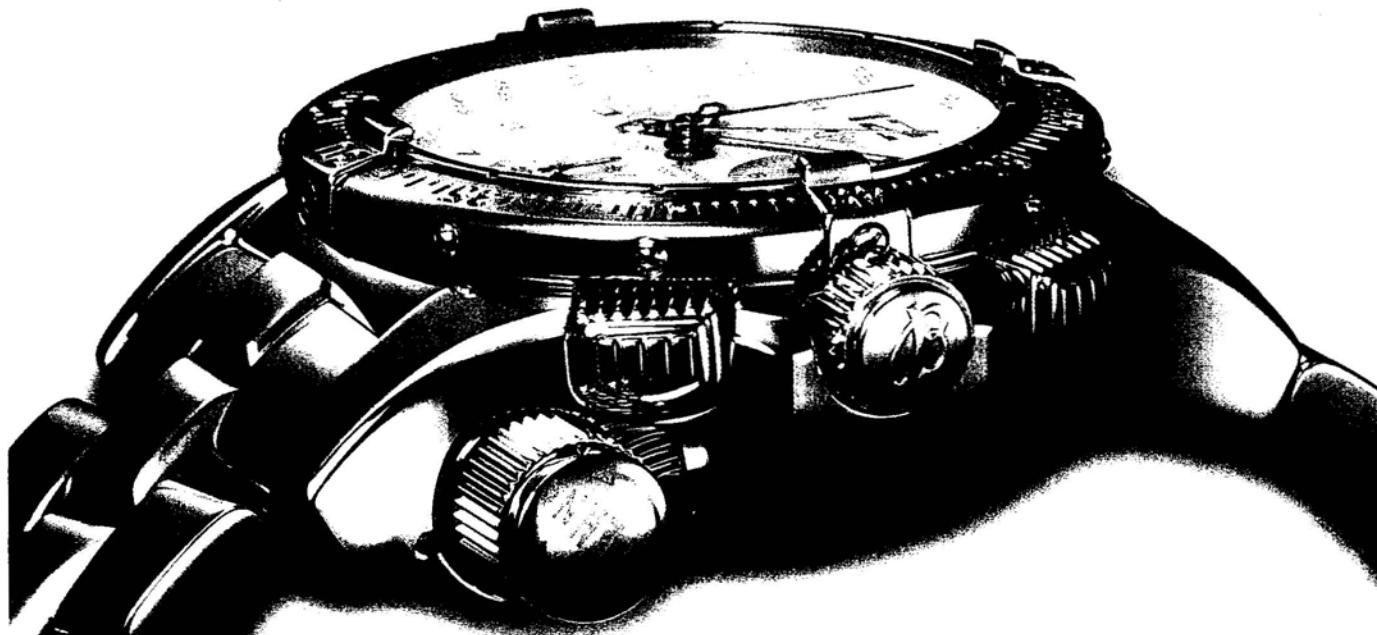
Precision. Sturdiness. Functionality. Right down to the slightest details, the EMERGENCY and the EMERGENCY MISSION reflect the obsession with quality that has always been characteristic of BREITLING. Like all the brand's chronographs and wrist instruments, they are equipped with chronometer-certified movements. BREITLING is in fact the world's only major watch brand to submit the entire range of its production – including both mechanical and quartz movements – to the extremely rigorous tests performed by the Swiss Official Chronometer Testing Institute. A decisive breakthrough in terms of precision and reliability. A step still closer to the world of aviation, where even the slightest component is meticulously certified and the tiniest adjustment is subjected to rigorous controls. A new stage in the pursuit of excellence in the service of the most demanding professionals.

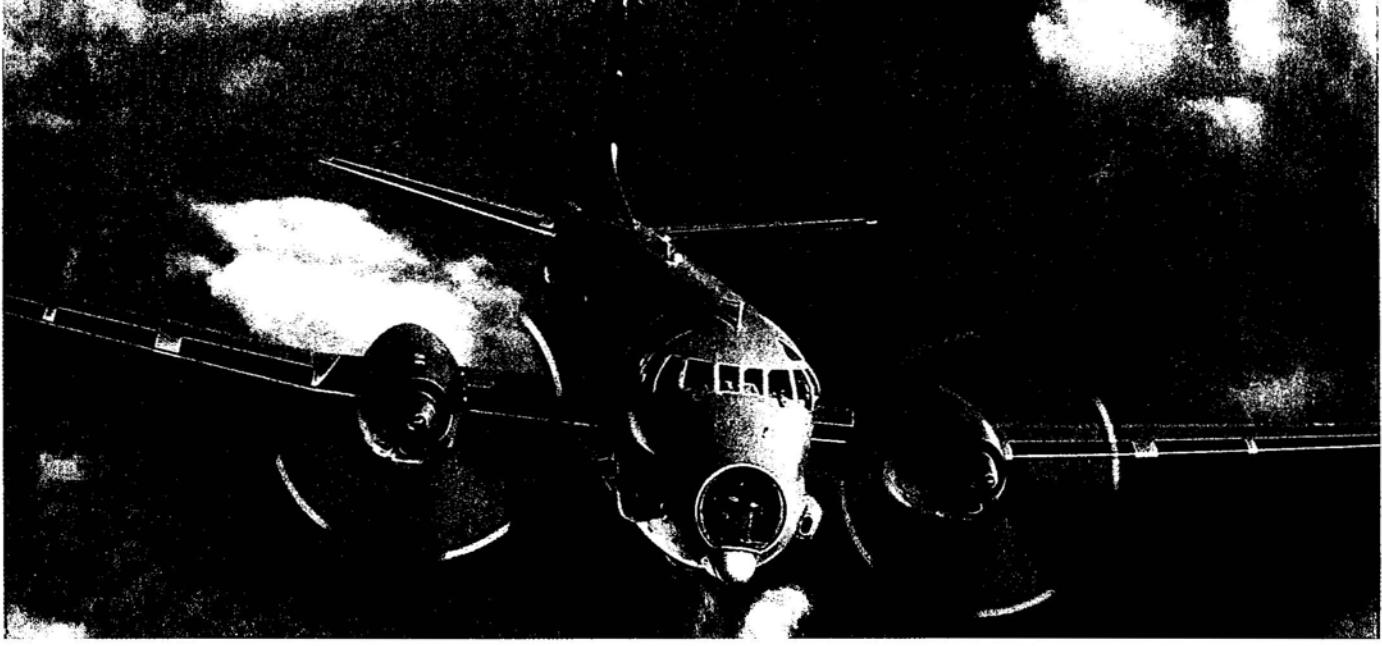




A vocation for saving lives Created in response to a request from NATO and tested by the finest aviation professionals, the BREITLING EMERGENCY enables close-range localization of pilots or passengers after an air crash. Worn at all times on the user's wrist, it is designed to complement the equipment carried on board all aircraft and offers an additional chance of survival in case of accident. Since its launch, it has already contributed to saving many lives.

SAR, the international search and rescue system In most countries of the world, locating and rescuing victims of aircraft accidents is performed in accordance with an extremely smooth-running procedure. Working together under the SAR (Search and Rescue) acronym, civilian and military organizations – either professional or voluntary – systematically cooperate in coordinating the implementation of the necessary technical and human resources required for their operations.

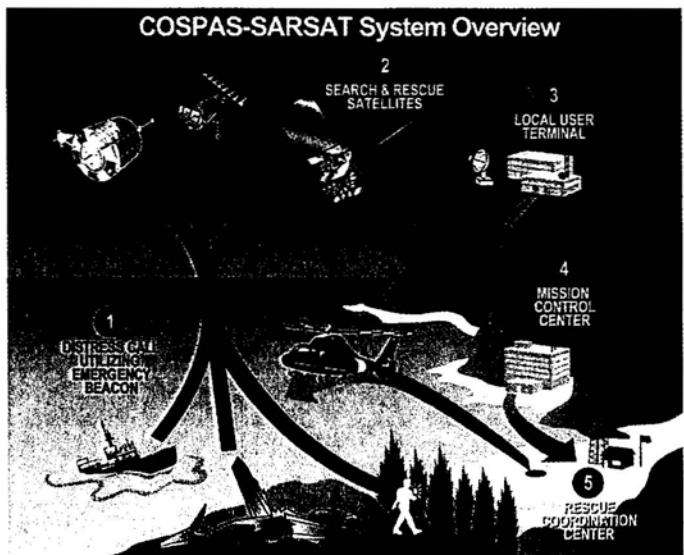


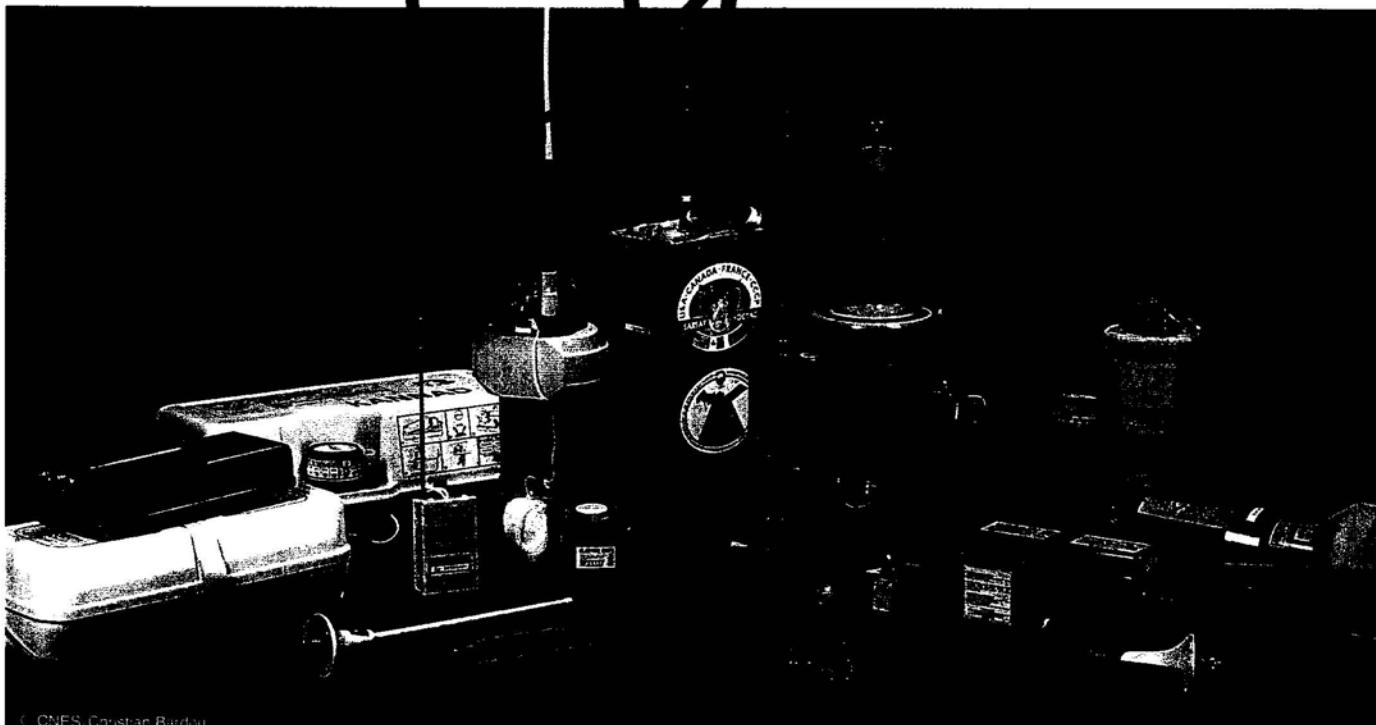
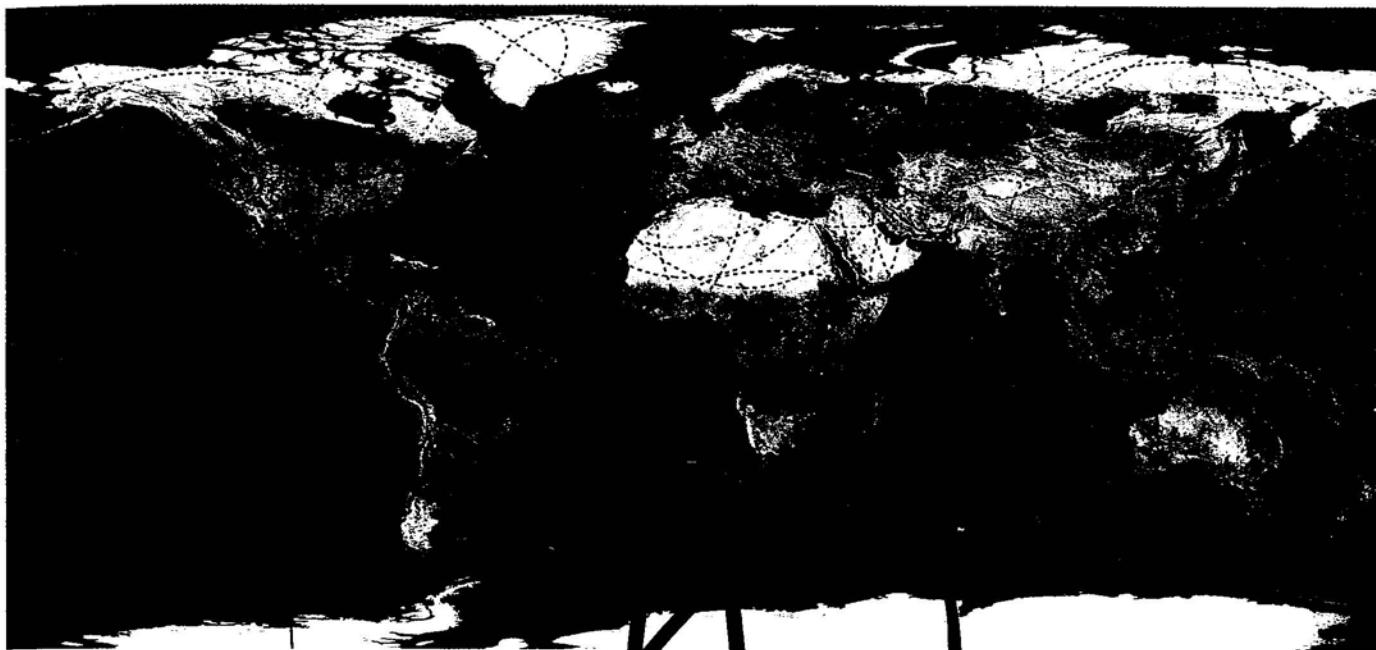


The rescue operations consist of two phases:

Alert All aircraft subject to international civil aviation rules are equipped with a mandatory onboard distress beacon broadcasting on the 121.5 and 406 MHz frequencies. In case of a crash, the airborne beacon is automatically activated on impact. Other factors may also trigger search missions: a distress message, eye-witness observation of the crash, disappearance from radar screens or a non-completed flight plan. As soon as it is activated, the signal from the aircraft beacon is picked up by COSPAS-SARSAT; this international search and rescue system comprises a network of satellites and land stations, as well as mission control and search coordination centers.

Localization and rescue The signal received by COSPAS-SARSAT is analyzed so as to calculate the approximate position of the crash. The relevant SAR organization begins its search immediately. Since 1982, more than 11,000 people have been rescued worldwide thanks to the COSPAS-SARSAT system. It is only during this second phase, meaning during the search itself, that the use of the BREITLING EMERGENCY wrist instrument comes into play. Its microtransmitter endowed with a 48-hour power reserve is ideal as a means of close-range localization once the sector of the crash has been determined. As soon as the signal is activated, search aircraft pick up the 121.5 MHz frequency and can immediately home in on the EMERGENCY and proceed to rescue survivors. The EMERGENCY thus complements airborne beacons and as such provides an additional chance of survival.







About the 406 MHZ frequency In 2000, COSPAS-SARSAT announced that as of 2009, its satellites would no longer pick up the 121.5 MHz frequency. The alert will be triggered exclusively on the 406 MHz frequency. The organization advises pilots to equip themselves with beacons using this digital frequency and liable to ensure enhanced reliability, to provide more precise information (especially if used in conjunction with a GPS or with the plane's Flight Management System) and to diminish the number of false alerts.

This change in no way modifies the usefulness and performances of the BREITLING EMERGENCY, since localization operations will continue to use the 121.5 MHz frequency, which in this context features numerous advantages over the 406 MHz digital frequency. The 121.5 MHz frequency will thus remain the most precise and reliable in localizing victims. It will continue to play a decisive role in the success of a rescue operation. For this reason, all the 406 MHz beacons in fact operate on two frequencies (406/121.5 MHz).

Two instruments in one

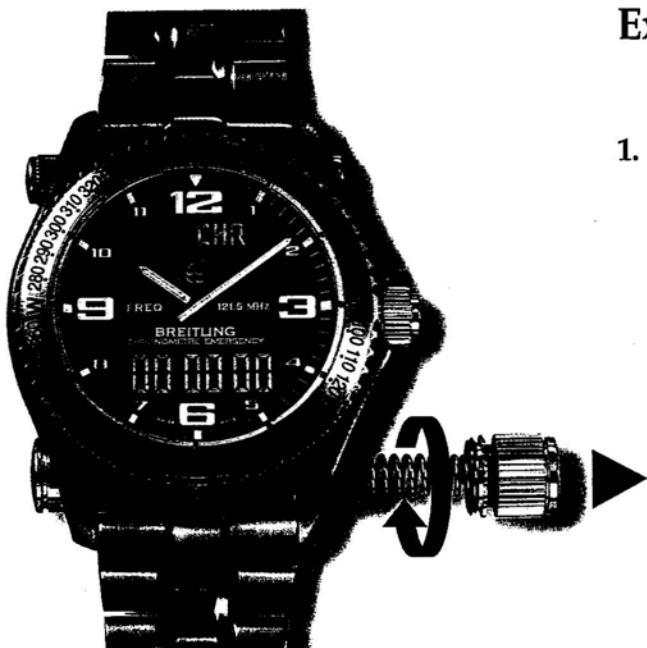
Intended for aeronautical use, the BREITLING EMERGENCY comprises two distinct parts, totally independent in terms of operation and energy source:

- an electronic chronograph module equipped with all the functions that are useful to aviation professionals
- a microtransmitter broadcasting on the 121.5 MHz frequency, with a main antenna and an auxiliary antenna, endowed with an autonomy of 48 hours (the EMERGENCY MISSION model has no auxiliary antenna).

Since the chronograph and the transmitter are independent, the fact that a watch has been visibly damaged in a crash does not necessarily imply that the transmitter is out of action.



Extremely simple handling



1. Unscrew antenna cap; the security ring snaps and the cap is released.

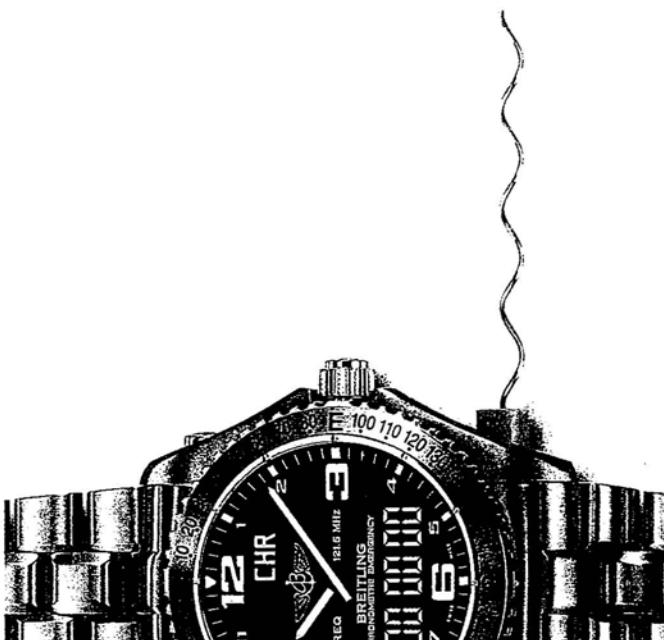


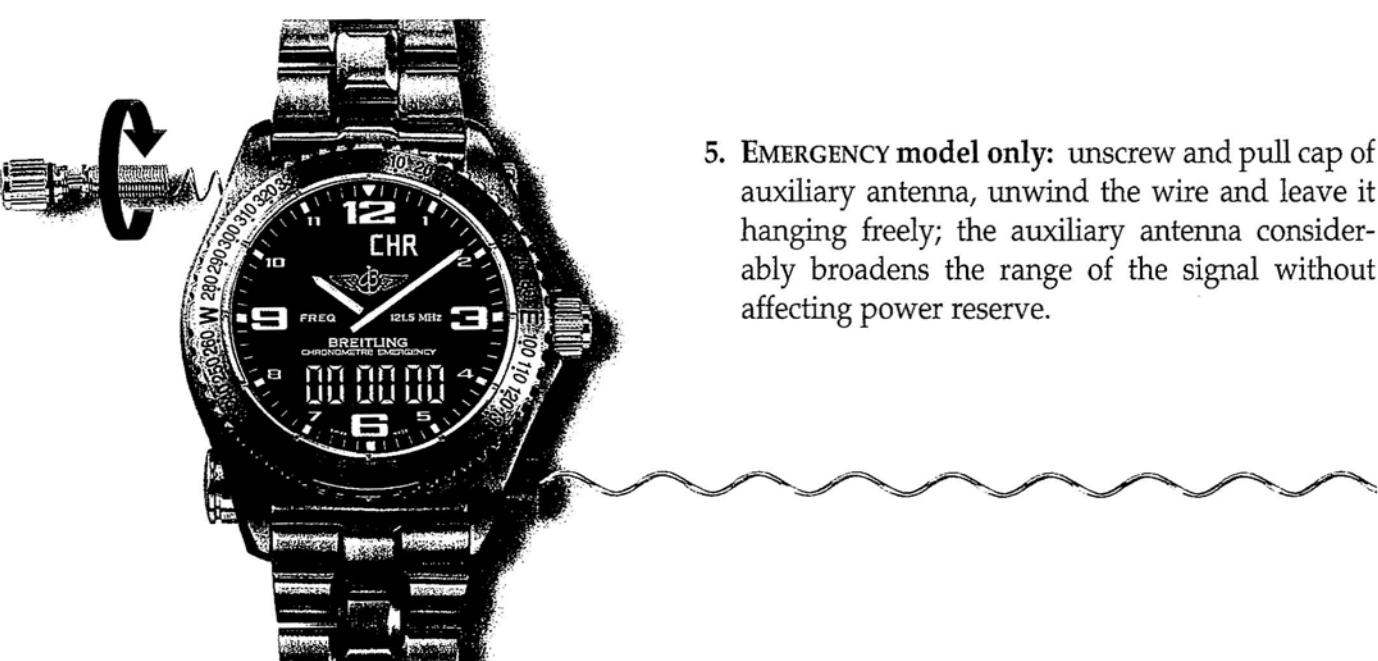
2. Pull the cap outwards to pull out the antenna. The cap automatically separates from the antenna when the latter is pulled out to its maximum length; the transmitter is thus activated.



3. Check correct operation of transmitter in "chronograph" mode (beeping every 2.25 seconds) or "alarm" mode (AL/OF flashing). On the EMERGENCY MISSION model, the 1/10th of a second totalizer hand sweeps once round the dial every 2.25 seconds.



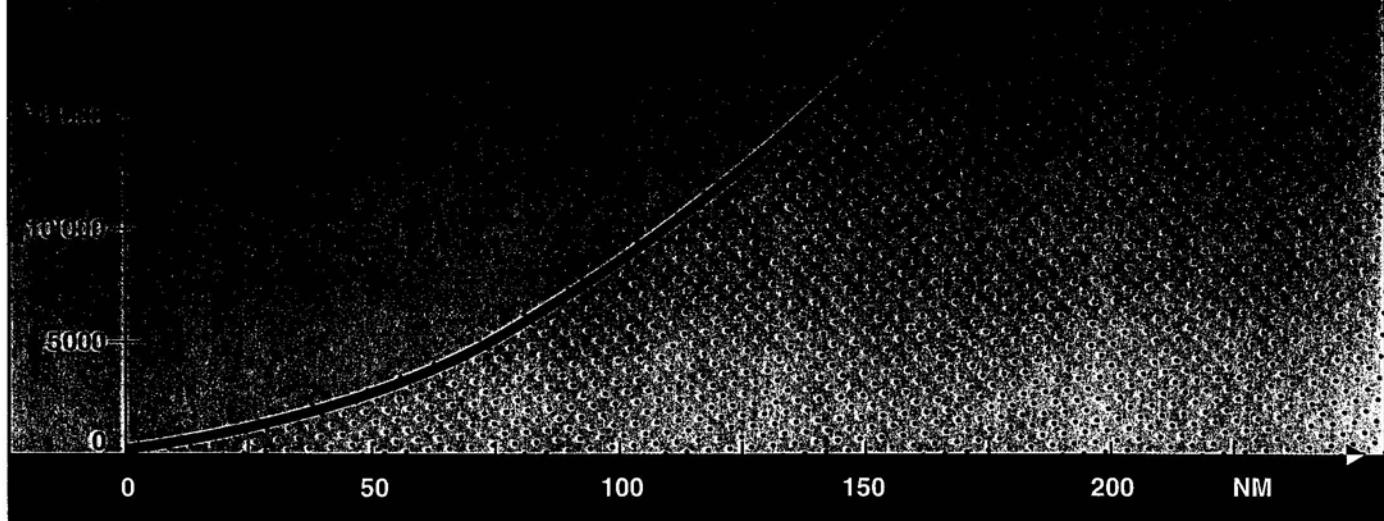
- 
- Set the antenna up vertically in an open area: the transmitter will operate for 48 hours.

- 
- EMERGENCY model only: unscrew and pull cap of auxiliary antenna, unwind the wire and leave it hanging freely; the auxiliary antenna considerably broadens the range of the signal without affecting power reserve.

- 
- To interrupt signal transmission, cut the antenna or wind it around the case: the range is thereby reduced to a few meters.

FEET

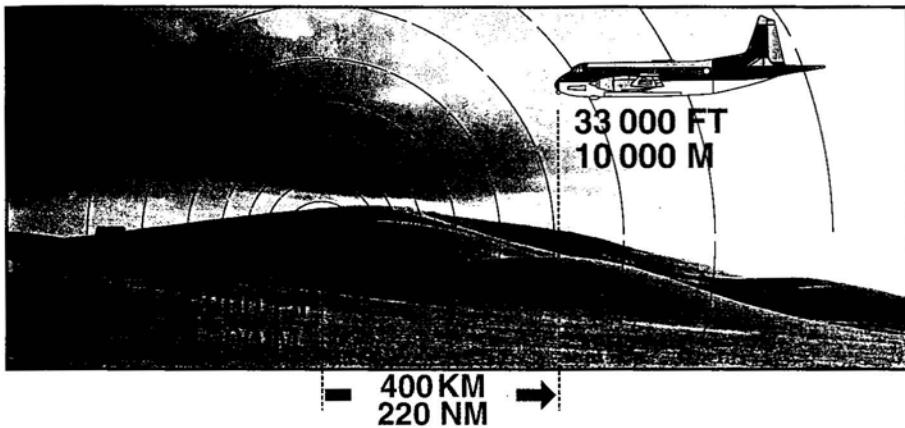
MAGNETIC
theoretical range



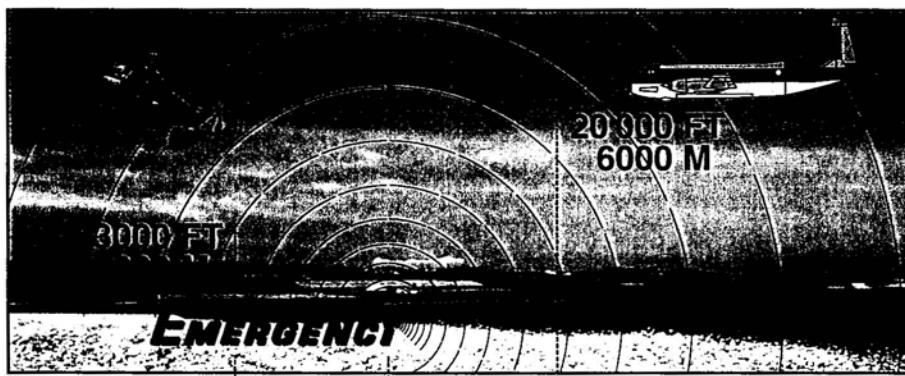
Transmitter range The range of the signal transmitted by the EMERGENCY essentially depends on the nature of the terrain, the position of the transmitter watch and the altitude of the search plane. Temperature and humidity may also play a role.

Power-reserve on 121.5 MHz frequency at a power of 30 mW: 48 hours • Operating temperature range: -10°C to +85°C • Power source: independent, 2 x 3 V lithium batteries • Water resistance: 3 bars/30 m (100 ft)

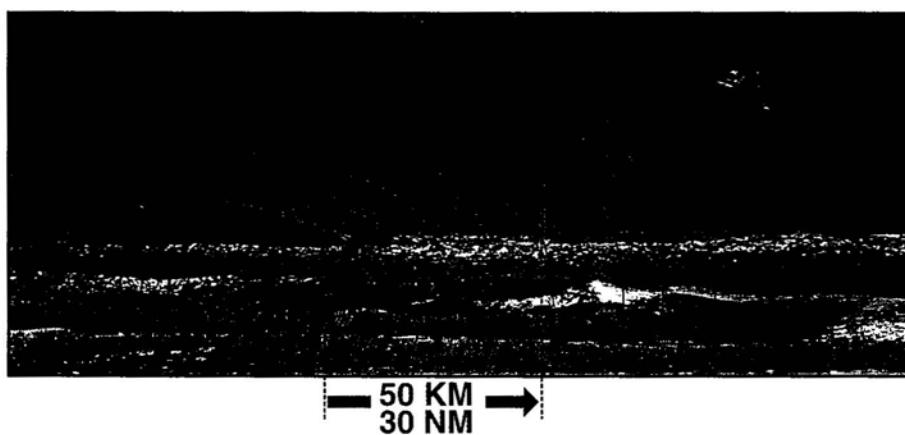




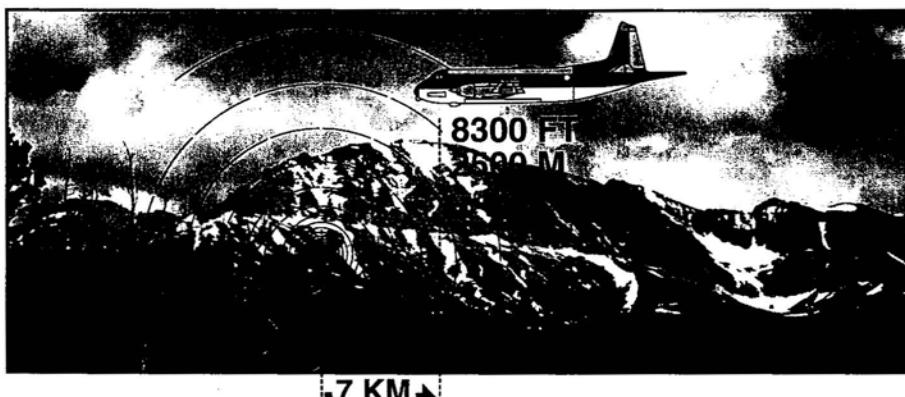
From a mountain-top, the range of the signal may reach over 400 km/220 NM for a plane flying at an altitude of 10,000 m/ 33,000 ft.



On flat terrain, the range of the signal may vary between 36 km/ 20 NM for a search plane flying at 900 m/3,000 ft and 160 km/90 NM for a plane flying at 6,000 m/20,000 ft.



On board a ship, the range is the same as on flat terrain. However, for a survivor floating with a life jacket in calm waters, the range is estimated at 50 km/30 NM for an aircraft flying at an altitude of 500 m/1,650 ft.



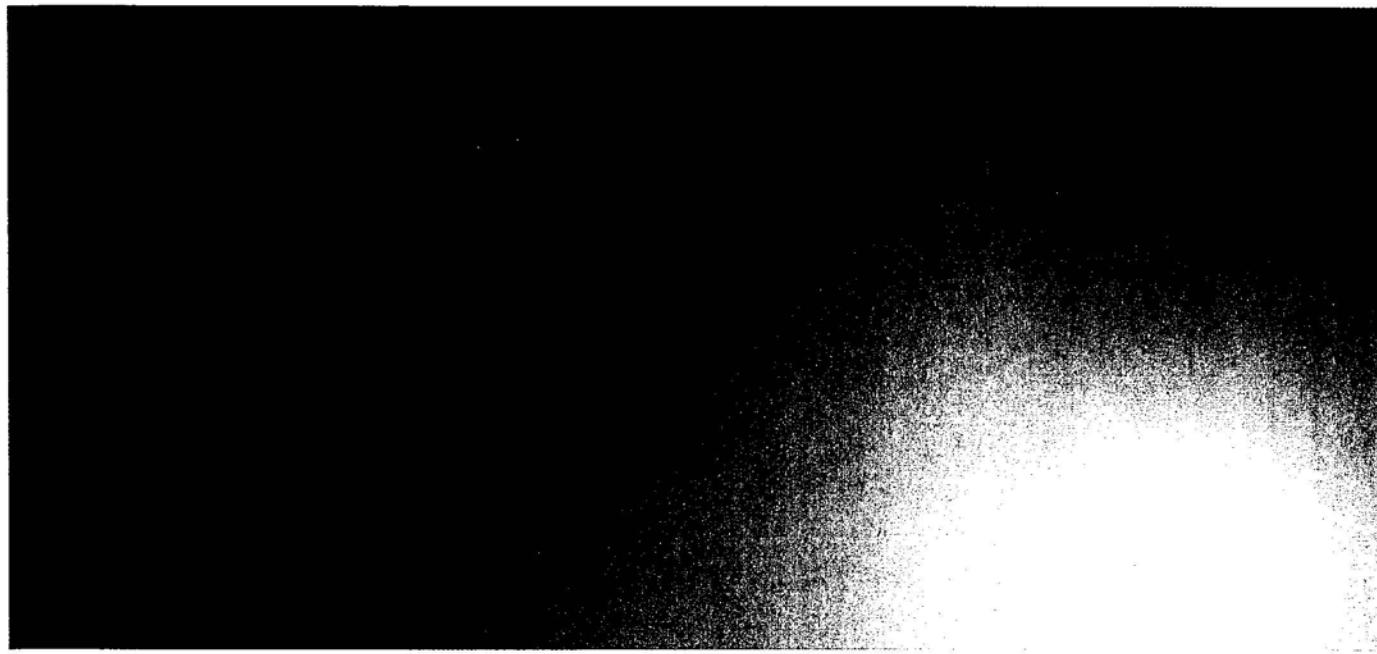
In undulating or very uneven terrain, the range is reduced. The position of the transmitter plays a crucial role in increasing the range of transmission. The auxiliary antenna enables considerable amplification of the transmitter range without using additional energy. (EMERGENCY model only).



EMERGENCY: an ultra-professional instrument Designed for pilots, the BREITLING EMERGENCY model is a resolutely unconventional instrument. One is immediately struck by its imposing size, its extremely technical appearance and its unfailing resistance. The one-piece case and sturdy bracelet are made in titanium, the metal of choice for modern aeronautical engineering. This futuristic material is endowed with exceptional qualities: it is hard yet remarkably light, anti-magnetic, highly corrosion-resistant and anti-allergenic. The BREITLING EMERGENCY is equipped with a SUPERQUARTZ™ thermocompensated movement, ten times more precise than standard quartz.* Its chronograph module features all the functions required by aviation professionals: 12/24 hour combined analog and digital display, 1/100th of a second chronograph, alarm, countdown, 2nd timezone, multilingual calendar and battery end-of-life indicator. The sapphire crystal, glareproofed both sides – a consistent feature of the entire BREITLING collection – as well as the luminescent numerals and hands guarantee optimal read-off, whatever the light conditions and angle of vision.

* From the summer of 2003

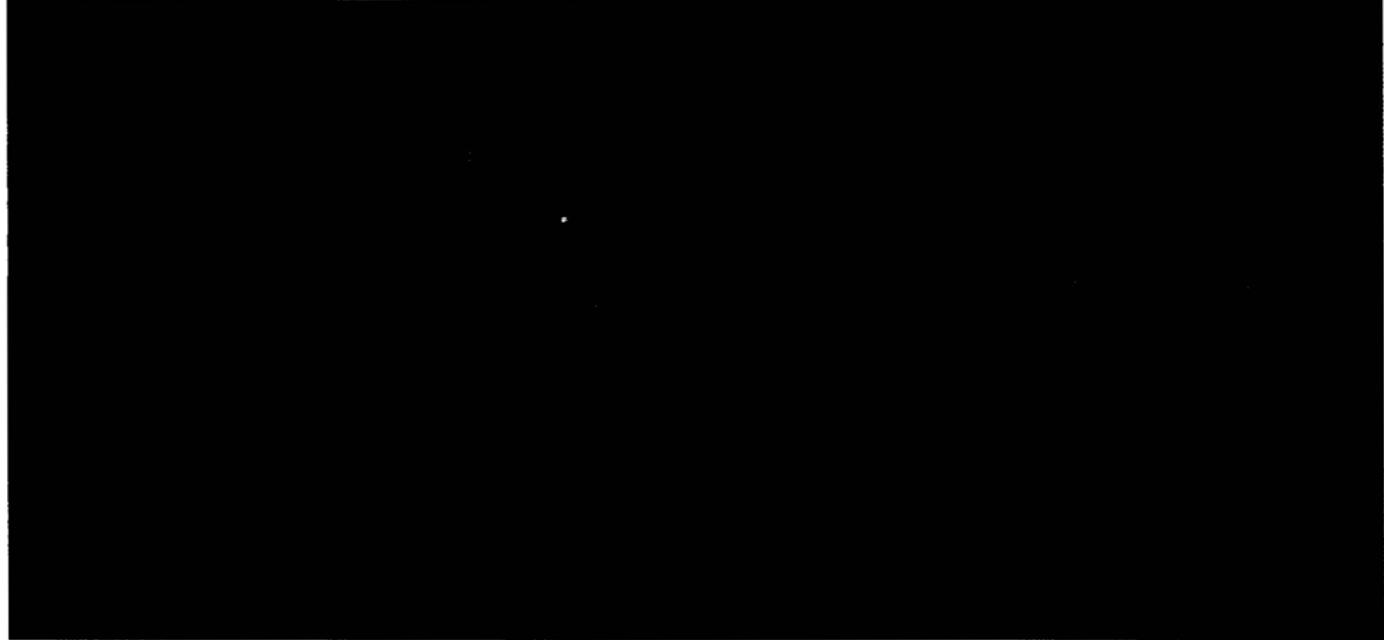




Movement: BREITLING SUPERQUARTZ™ caliber 76, chronometer-certified. Electronic thermocompensated quartz movement, combined analog and LCD digital 12/24 hour display. 1/100th of a second chronograph, max. 23 hours, 59 minutes, 59.99 seconds. Countdown (timer), 2nd time zone, alarm. Digital calendar (day and date programmed for 4 years). Battery end-of-life indicator. **Case:** titanium. Water-resistant to 3 bars/100 feet (30 meters). Sapphire crystal, glareproofed both sides. Bidirectional rotating bezel. 43 mm in diameter. **Bracelet:** PROFESSIONAL.

* From the summer of 2003

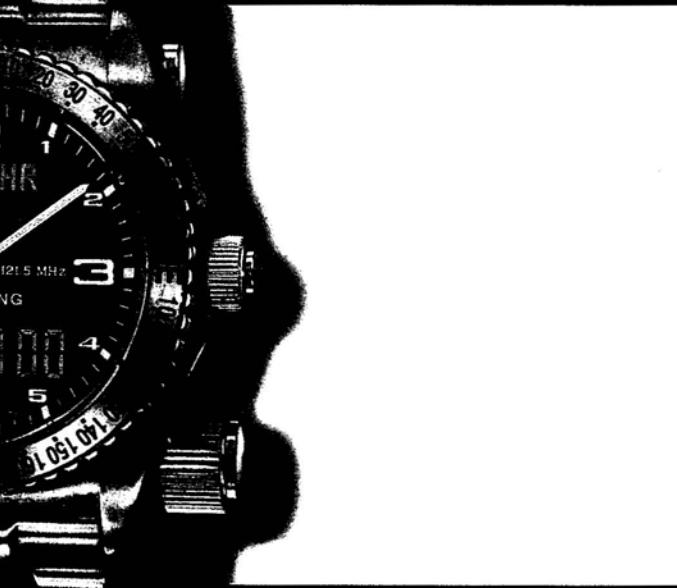
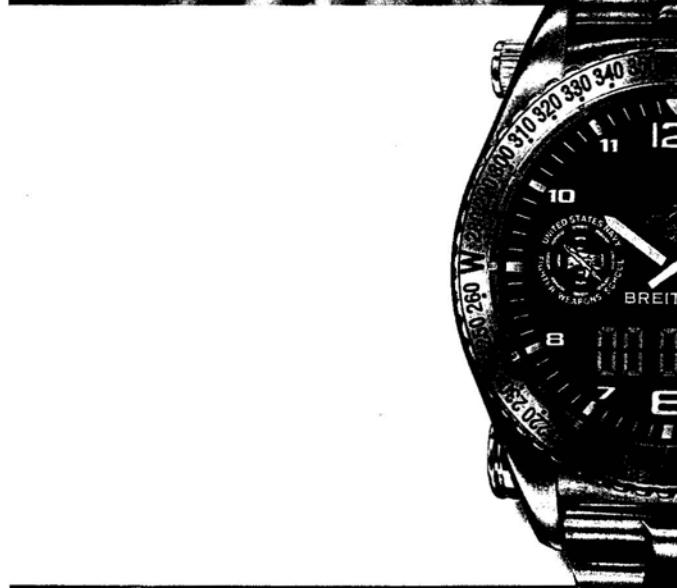




Tested in action Aviation has always been the best testing bench for BREITLING chronographs and wrist instruments. Thanks to its close links with aviation professionals, BREITLING was able to test the EMERGENCY in real conditions to ensure it meets the highest criteria of functionality and reliability. Thousands of miles were covered by plane, helicopter and boat to measure its performance in varying conditions in terms of altitude, relief of the terrain and weather conditions. Many military and civilian partners involved in the search for air crash survivors train regularly with an EMERGENCY. Moreover, the transmitter-watch is approved by the major telecommunication and civil aviation authorities, particularly the FAA.

The watch of national flight teams In order to test the EMERGENCY in the toughest conditions, BREITLING has equipped the most prestigious national flight display teams with transmitter-watches exactly identical to the series-produced models. *Patrouille Suisse*, *Thunderbirds*, *Frecce Tricolori*, *Red Arrows*, *Patrouille de France*, as well as the famous *Topguns*, the leading US military instructors. All these airforce teams have even ordered customized versions of the EMERGENCY.

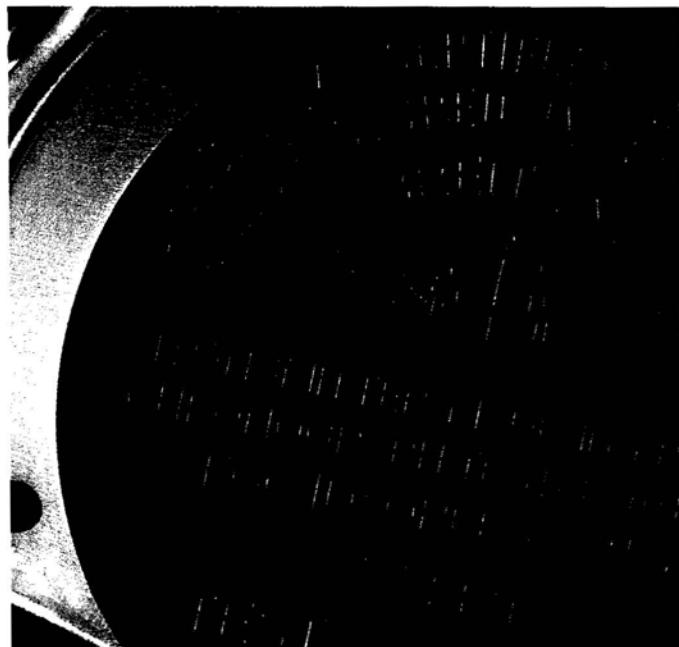






EMERGENCY MISSION: the "civilian" version of the EMERGENCY With its design more similar to that of a traditional chronograph, the EMERGENCY MISSION is intended to be a more luxurious and refined version of the original model. Titanium has given way to polished steel. The bezel is equipped with four rider tabs. The rectangular pushpieces are decorated. Digital functions are replaced by an analog display, with three highly readable totalizers for the chronograph functions. Models are fitted with a choice of steel bracelet or a strap in rubber, leather, sharkskin or crocodile leather. But beneath this "tamer" appearance, the MISSION chronograph remains a formidably efficient instrument. It is equipped with a SUPERQUARTZ™ thermocompensated movement, the only technology able to meet the stringent precision requirements of the Swiss Official Chronometer Testing Institute (COSC). Moreover, its chronograph is capable of measuring short times to the nearest 1/10th of a second, with split-time readoff, while providing optimal readability in any conditions. The sturdy case, water-resistant to 330 ft (100 meters), is fitted with a screw-locked crown and a sapphire crystal, glareproofed both sides. Meanwhile, the performances of the emergency microtransmitter entirely match those that have won the favor of pilots the world over.



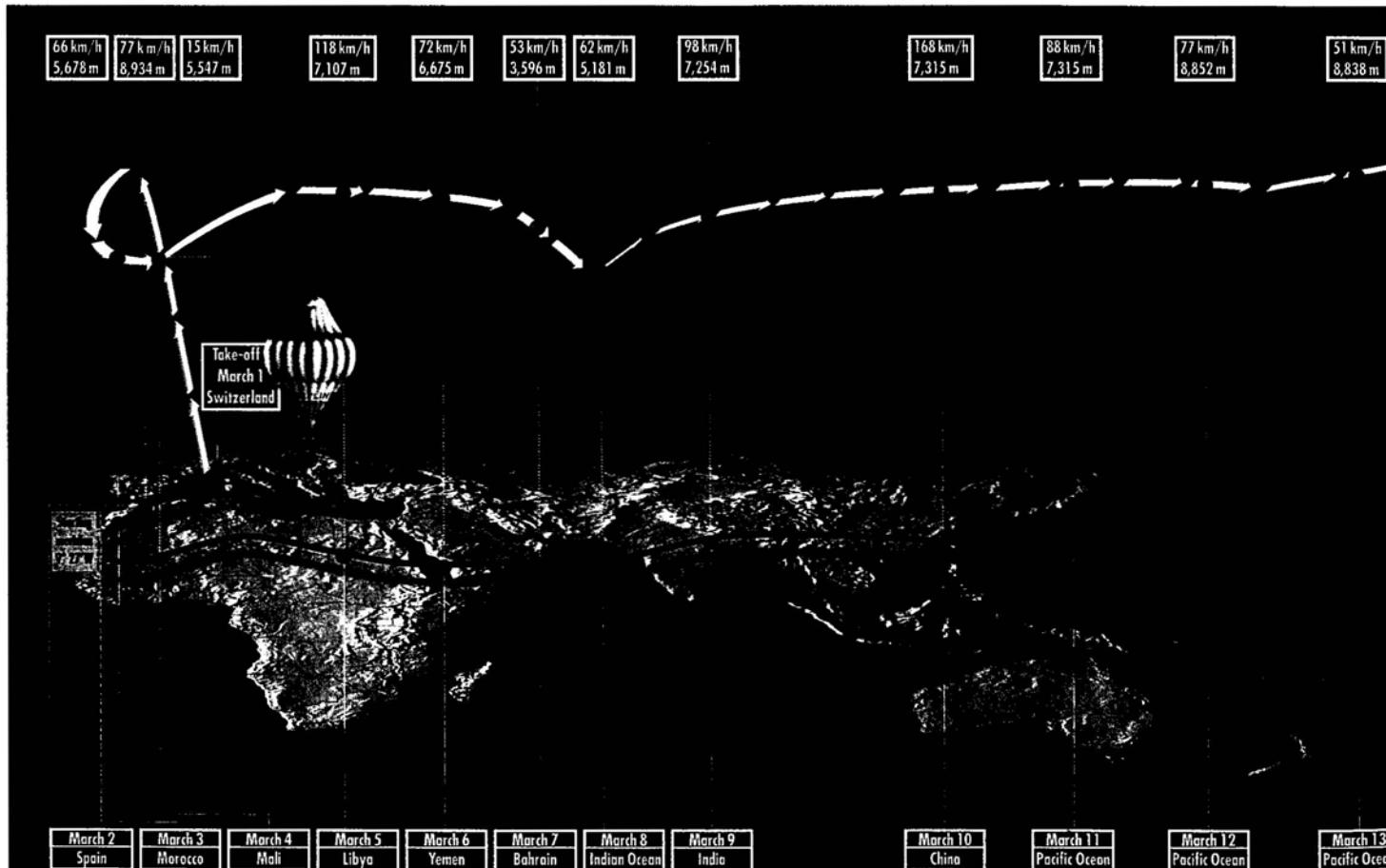


Movement: BREITLING SUPERQUARTZ™ caliber 73, chronometer-certified. Electronic thermocompensated quartz movement. 1/10th of a second chronograph with split times (split-seconds hand), 60-minute totalizer (in the center) and 12-hour totalizer. Quick timezone change. Calendar. **Case:** steel. Water-resistant to 10 bars/330 feet (100 meters). Screw-locked crown. Sapphire crystal, glareproofed both sides. Bidirectional rotating bezel. 45 mm in diameter. **Bracelet/straps:** steel FIGHTER bracelet or DIVER PRO rubber strap. Also available with leather, sharkskin or crocodile leather strap.

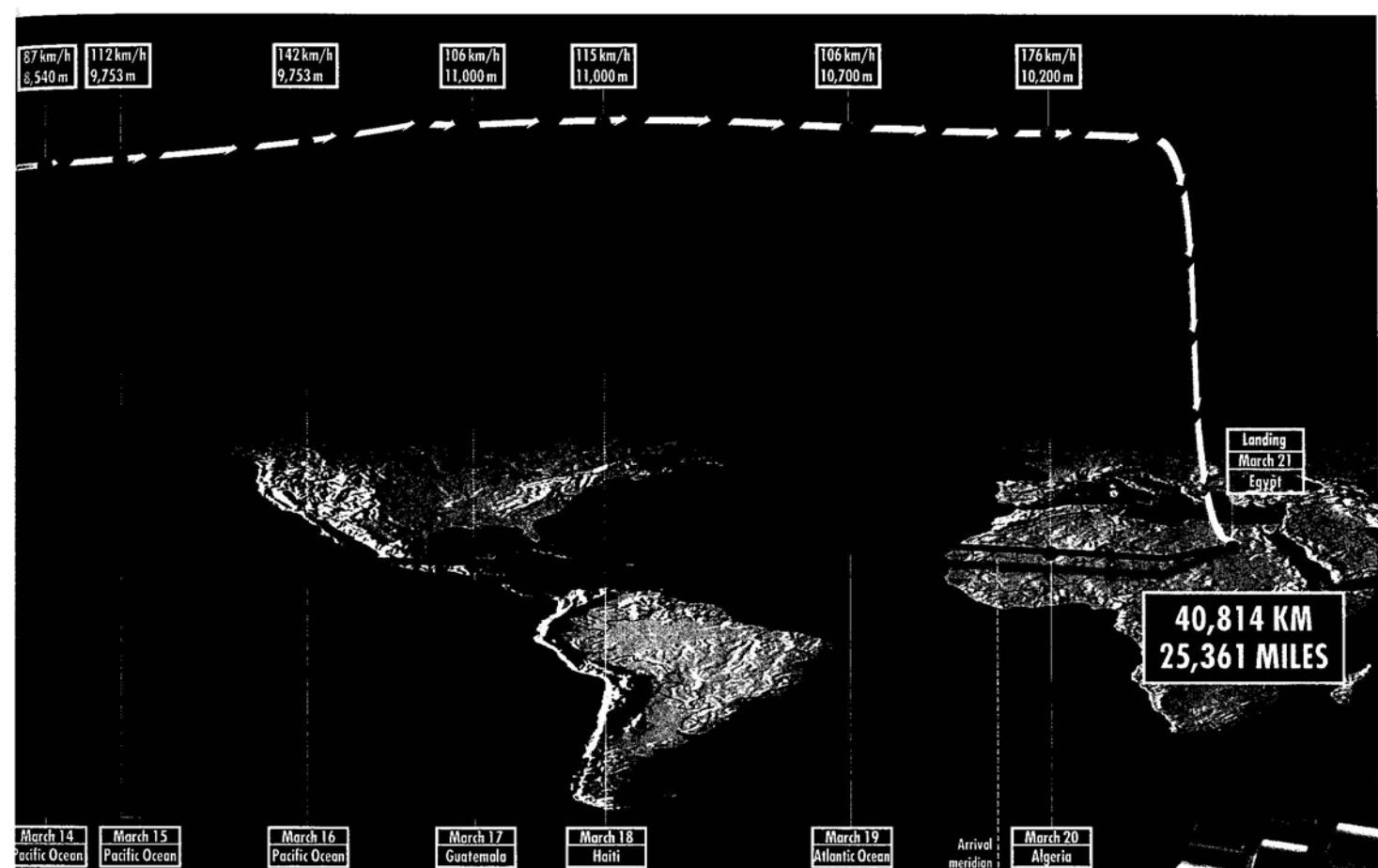
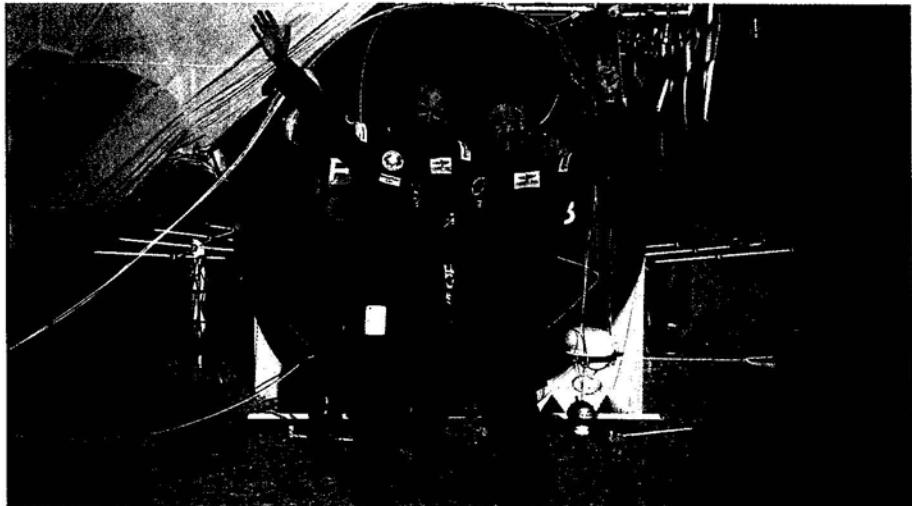




An EMERGENCY on their wrist March 21st 1999, Bertrand Piccard and his fellow crew member Brian Jones touch down in the Egyptian desert after completing the first nonstop round-the-world balloon flight aboard BREITLING ORBITER 3. On their wrist throughout this journey was a BREITLING EMERGENCY, synonymous with safety, reliability and high precision. An adventure of both scientific and human scope and importance, this feat is being perpetuated in a foundation named Winds of Hope which aims to promote respect for life in all its forms.



Meanwhile, the capsule of BREITLING ORBITER 3, a rozier-type balloon with high-tech equipment, is now proudly ensconced in the Smithsonian National Air and Space Museum in Washington, among other Milestones of Flight such as Lindbergh's Spirit of St. Louis, the Apollo XI capsule and other aircraft that have accomplished some of the major historical exploits in the conquest of the skies.



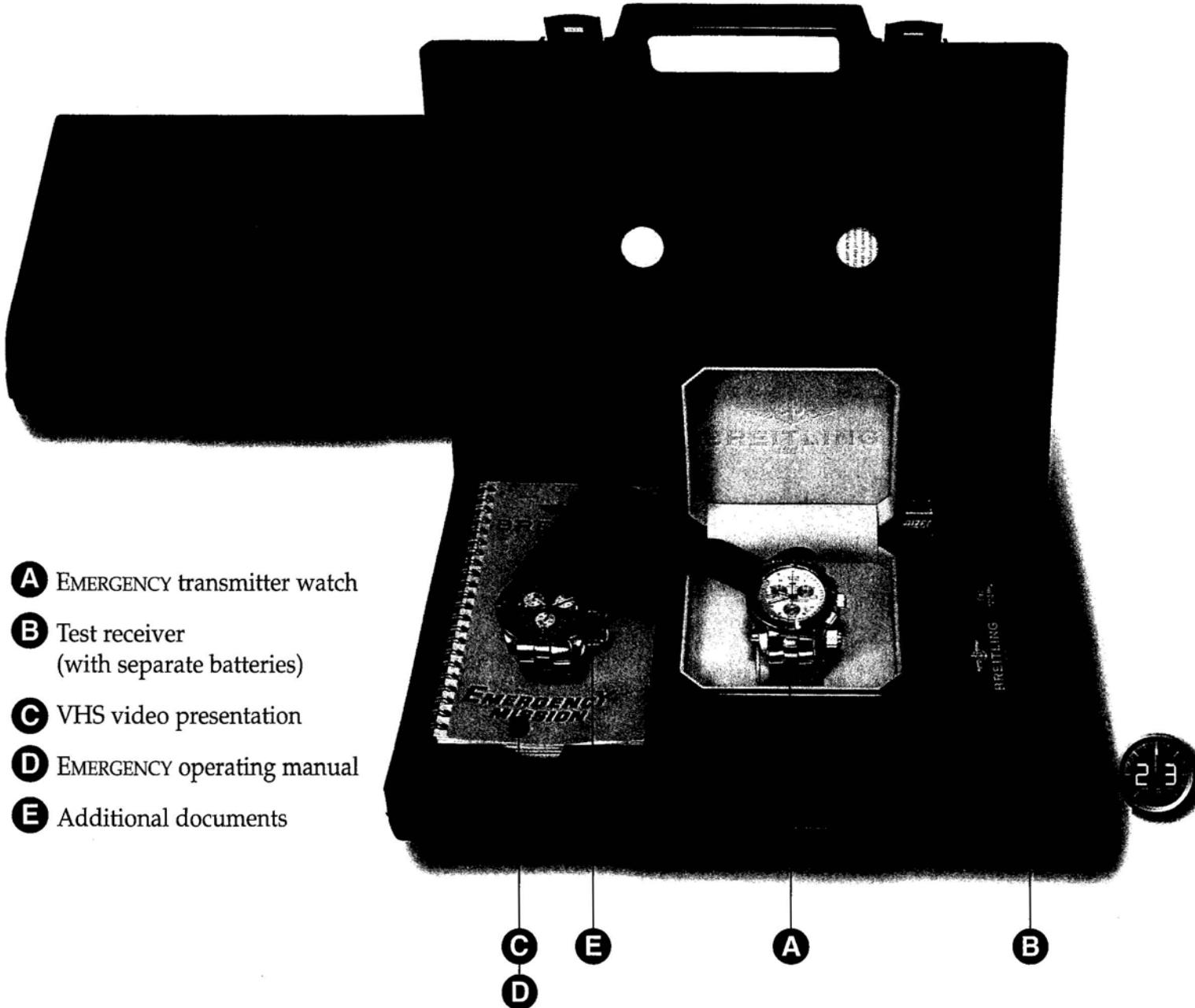
To commemorate the last great aviation record in history, BREITLING issued a limited edition of 1,999 of the EMERGENCY, the chronograph worn by Bertrand Piccard and Brian Jones during their fabulous journey around the globe.





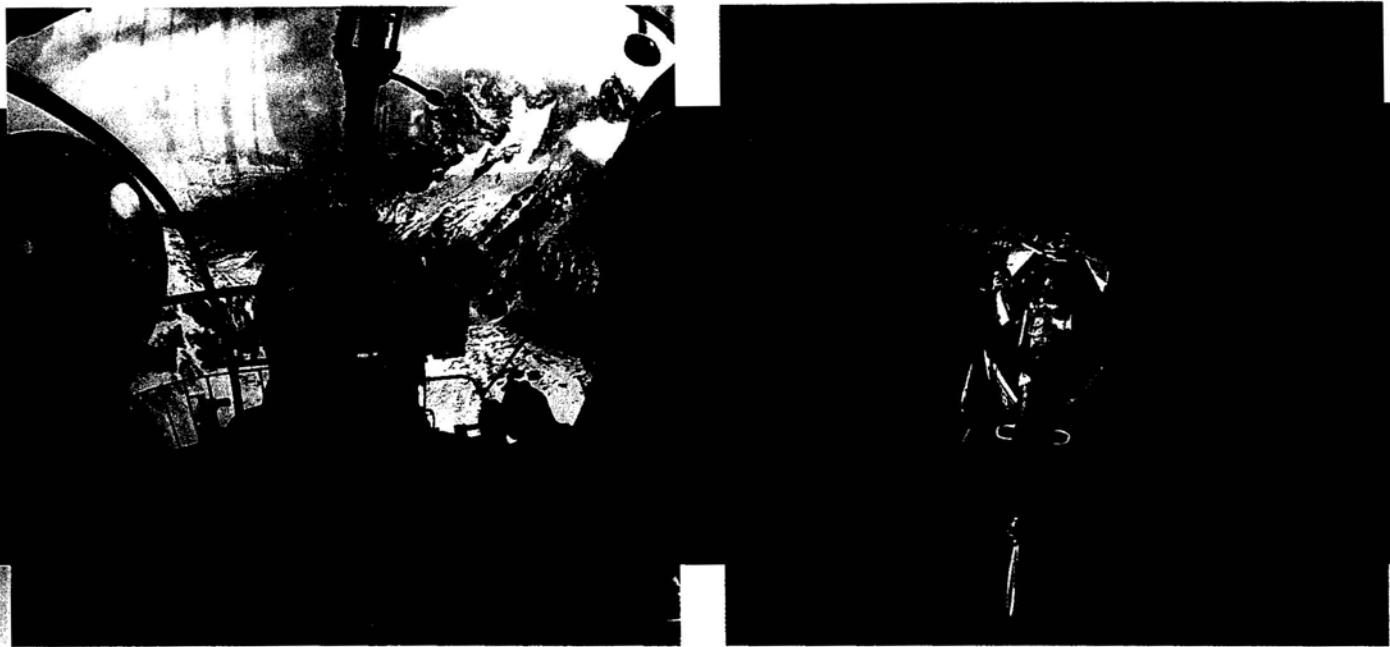
JAS-39 Gripen – Pilots equipped with BREITLING EMERGENCY The Saab JAS-39 Gripen is the first 4th-generation fighter jet in service. A multipurpose fighter (JAS are the Swedish initials for Chase, Attack and Reconnaissance), it is fitted with a state-of-the-art navigating system and cutting-edge avionics. Its platform is the lightest of all aircraft in the new generation and it is capable of taking off from the road in less than 800 m (2,700 ft). Pilots qualified to fly the Saab Gripen all receive a BREITLING EMERGENCY as part of standard equipment. The ultimate wrist instrument on the ultimate fighter plane: another link between BREITLING and aviation professionals.





- A** EMERGENCY transmitter watch
- B** Test receiver
(with separate batteries)
- C** VHS video presentation
- D** EMERGENCY operating manual
- E** Additional documents

An extremely professional case The BREITLING EMERGENCY wrist instrument comes in a storage and transport case comprising all the necessary equipment and documents. The detailed operating manual and a video presentation in five languages enable the user to become familiar with the multifunction chronograph and the emergency transmitter. The test receiver also makes it possible to check that the transmitter is operating correctly without pulling out the antenna.



BREITLING BRANDS AND MODELS ARE INTERNATIONALLY REGISTERED
BREITLING RESERVES THE RIGHT TO CHANGE THE PRICE, ALTER THE
SPECIFICATIONS AND MODIFY THE DESIGN OF ALL ITS MODELS

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SEPTEMBER 2007

BREITLING EMERGENCY

I. SWITZERLAND / PATENTS

SWITZERLAND

1. Certification test, Breitling Emergency E56121, TELECOM, 19.5.95 (Translation).
Enclosure : Zulassungsprüfung Breitling Emergency E56121, (Original with Test Report).
2. Certification test, Receiver REF.109.121, TELECOM, 19.6.95 (Translation).
Enclosure : Zulassungsprüfung Receiver REF.109.121 (Original with Test Report).
3. Breitling Emergency - Meeting held in Biel, BAKOM, 29.4.96 (Translation with Order of Approval).
Enclosure : Breitling Emergency (Original).
4. Breitling Emergency, FOCA, 20.5.96 (Translation).
Enclosure : Breitling Emergency (Original).
5. Breitling Emergency in Switzerland, FOCA, 21.1.98.

PATENTS

6. Wristwatch with high-frequency transmitter, European patent office, 26.06.1996 (Translation).
Enclosure : Demande de brevet européen, Office européen des brevets, 26.06.1996 (Original).
7. Patent Number 5,559,760, United States Patent, Sep. 24, 1996.

1

Generaldirektion PTT

TELECOM

SWITZERLAND 7. JULY 1995

To: BREITLING SA
Attn.: J.-P. Girardin
2540 Grenchen

Our ref.: Gu/nyf Auftrag Nr. 60.00495

Recall: +41 31 3389300

Date: 19.5.95

Certification test

BREITLING EMERGENCY E 56 121

Dear Mr. Girardin,

Please find enclosed the under-mentioned test report in respect of the equipment in question.
We found that all technical standards of relevance are met.

You, or the entitled person, may now apply to the Bundesamt für Kommunikation (BAKOM), Zukunftstrasse 44, 2503 Biel, for a Swiss approval in respect of your equipment, i.e. using the enclosed report, and any other documents that you may have which serve to prove conformance with the other standards required for an approval. As far as we know, it takes some 3 weeks for an application for an approval (i.e. submitted in full) to be dealt with.

We now take the liberty to bill you for the technical clarifications, the cost of testing and the test reports. BAKOM will send you its own bill for administrative fees.

We thank you for your assignment, and the confidence you have thus shown in us.

Yours faithfully,

Subscriber Equipment Department

R. Guyan

Encs.:

- Test report (2 copies): FE 67.5032 B
- Invoice
- Application form

ENCLOSURE

Generaldirektion PTT
Direktion Forschung und
Entwicklung
Technisches Zentrum
Ostermundigenstrasse 93
3000 Bern 29

Telefon 031 338 29 80
Telefax 031 338 57 47
Telex 911 031 vptt ch
Postkonto 30-1565-7

TELECOM 

Ihr Zeichen
Votre référence
Your reference

Ihre Nachricht vom
re communication du
Your communication

Unser Zeichen
Notre référence Gu/nyf Auftrag Nr. 60.00495
Our reference

Rückruf
Rappel +41 31 3389300
Recall

Datum
Date 19.5.1995
Date

BREITLING SA
Herrn J.-P. Girardin
Postfach 1132
2540 Grenchen

Zulassungsprüfung Breitling Emergency E 56 121

Sehr geehrter Herr Girardin

Als Beilage erhalten Sie den unten aufgeführten Prüfbericht für das erwähnte Gerät. Wir konnten feststellen, dass die zulassungsrelevanten, technischen Anforderungen erfüllt sind.

Mit dem beigelegten Bericht und gegebenenfalls weiteren bereits in Ihrem Besitz befindlichen Dokumenten, mit welchen Sie die Erfüllung der übrigen zulassungsrelevanten Anforderungen nachweisen, können Sie bzw. der Berechtigte nun beim Bundesamt für Kommunikation (BAKOM), Zukunftstrasse 44, 2503 Biel, die CH-Zulassung für Ihr Gerät beantragen. Für ein vollständig eingereichtes Zulassungsgesuch beträgt die Behandlungszeit gemäss unseren Informationen ca. 3 Wochen.

Wir gestatten uns, Ihnen für die technischen Abklärungen, den geleisteten Prüfaufwand und die Prüfberichte Rechnung zu stellen. Das BAKOM wird seine Verwaltungsgebühren separat verrechnen.

Wir danken Ihnen für den Auftrag und das uns damit entgegengebrachte Vertrauen.

Mit freundlichen Grüßen

Teilnehmerausrüstungen



R. Guyan

Beilagen:

- Prüfbericht (2 Ex.): FE 67.5032 B
- Rechnung
- Anmeldeformular

Generaldirektion PTT
Forschung und Entwicklung
Teilnehmerausrüstungen (FE 6)
CH-3000 Bern 29

Telefon +41 (0)31 338 93 00
Telefax +41 (0)31 338 99 04

Prüfbericht

Dokument-Nr.: FE 67.5032 B Datum: 11.5.1995
Seite 1 von: 16 Beilagen: -
Auftrags-Nr.: 60.00495



S Schweizerischer Prüfstellendienst
T Service suisse d'essai
S Servizio di prova in Svizzera
S Swiss Testing Service

Funkgeräte technik

Berechtigter: BREITLING SA, Hr. J.-P. Girardin
(Eigentümer des Prüfberichts) Postfach 1132, 2540 Grenchen
Tel. 065/51 11 31 Fax 065/52 07 55

Prüfgegenstand: BREITLING EMERGENCY E 56 121

Hersteller: BREITLING SA, 2540 Grenchen

Fachgebiet: radio, EPIRB, ELT

Prüfgrundlage/Norm: BAKOM 337/1.5 Ausgabe 2: 9. Dez. 1994
Provisorische Technische Anforderungen für Emergency Position Indicating Radio (EPIRBs) die auf den Frequenzen 121.5 MHz und 243 MHz betrieben werden.

Prüfumfang: Vollständige Erstprüfung gemäss Prüfgrundlage

Prüfergebnis: Der Prüfgegenstand erfüllt die Anforderungen im obgenannten Fachgebiet gemäss angegebener Prüfgrundlage und beschriebenen Prüfumfang:

ja (X) nein (-)

Der Sachbearbeiter (Name, Dienststelle, Visum): H. Ruchti, FE 67 *Per*

Der Fachbereichsleiter (Dienststelle, Visum): FE 67 *Mg*

Der Prüfstellenleiter (Dienststelle, Unterschrift): FE 6 *i. A. HR. Maag*

Hinweise:

Die Prüfung wurde auf der Prüffrequenz 121.375 MHz durchgeführt.

Nebst der geforderten NF-Modulation wird zusätzlich alle 1.02 Minuten eine Kennung (—; B nach Morse) ausgestrahlt.

Inhalt

1. Referenzen

2. Angaben zum Prüfgegenstand

- 2.1 Beschreibung des Prüfgegenstandes
- 2.2 Kennzeichnung am Prüfgegenstand
- 2.3 Modifikation am Prüfgegenstand
- 2.4 Parametereinstellung am Prüfgegenstand anlässlich der Prüfung
- 2.5 Technische Angaben zum Prüfgegenstand (Herstellerangaben)

3. Angaben zur Prüfung

- 3.1 Vorakten
- 3.2 Prüfung
- 3.3 Prüfgrundlage

4. Ausgeführte Messungen und Prüfergebnisse

5. Prüfresultate

6. Prüfmittel

7. Photos der Anlage

Titel: Prüfbericht		Datum:	Seite:
Dokument-Nr.:	FE 67.5032 B	11.5.1995	2 von 16

1. Referenzen

-Bakom 337 / 1.5

Ausgabe 2: 9. Dez. 1994

Provisorische Technische Anforderungen für Emergency Position Indicating Radio Beacons (EPIRBs) die auf den Frequenzen 121,5 MHz und 243 MHz betrieben werden.

-ETS 300 152

December 1991

Maritime Emergency Position Indicating Radio Beacons (EPIRBs) intended for use on the frequency 121,5 MHz and 243 MHz for homing purposes only.

-CCIR Recomendation 690

1990

Transmission characteristics of Emergency Position - Indicating Radio Beacons (EPIRBs) operating on carrierfrequencies of 121,5 MHz and 243 MHz.

-ITU Radio Regulations: Appendix 37 A

Mob-87

Technical Characteristics of Emergency Position - Indicating Radiobeacons Operating on the Carrier Frequencies 121,5 MHz and 243 MHz.

Titel: Prüfbericht			
Dokument-Nr.: FE 67.5032 B	Datum: 11.5.1995	Seite: 3 von 16	

2. Angaben zum Prüfgegenstand

2.1 Beschreibung des Prüfgegenstandes

Integrierter Notsender in Armbanduhr

2.2 Kennzeichnung am Prüfgegenstand

BREITLING EMERGENCY No. 0068

2.3 Modifikationen am Prüfgegenstand anlässlich der Prüfung

Keine

2.4 Parametereinstellungen am Prüfgegenstand anlässlich der Prüfung

Keine

2.5 Technische Angaben zum Prüfgegenstand (Herstellerangaben)

Markenbezeichnung:

BREITLING

Typenbezeichnung:

EMERGENCY E 56 121

Art:

Frequenzbereich:

121.500 MHz

Zahl der schaltbaren Kanäle:

1

Kanalabstand:

-

Duplexabstand:

-

Modulationsart:

AM (A3X)

Selektivruf:

-

Tonsquelch:

-

Einsatzart:

Notsender

Dauerbetrieb:

Ja

Stromversorgung:

Lithium Batt. 3 V (Sendebetrieb ≥ 50 Std.)

Sender

≥ 30 mW

Frequenzaufbereitung:

f_q = f_s

Leistungsaufnahme beim Senden:

54 mW (Stand-by 0.3 mW)

Empfänger

1. ZF:

2. ZF:

Frequenzaufbereitung:

Leistungsaufnahme Standby:

Konfiguration Prüfling

Sendefrequenz:

121.375 MHz (Prüffrequenz)

Empfangsfrequenz:

Dipollänge (ausgestreckt) 43 cm

Gegengewicht (ausgestreckt) 58 cm

Antenne:

3. Angaben zur Prüfung

3.1 Vorakten

3.1.1 Anmeldung zur Prüfung

Auftraggeber:	Berechtigter (Eigentümer des Prüfberichtes):
BREITLING SA Herrn J.-P. Girardin Postfach 1132 2540 Grenchen Tel. 065/51 11 31 Fax 065/52 07 55	identisch mit Antragsteller

3.1.2 Frühere Berichte der PTT-Prüfstelle: (im Fachgebiet und zum Prüfgegenstand)

Keine

3.2 Prüfung

- 3.2.1 Eingang des Prüfgegenstandes: **9. Mai 1995**
3.2.2 Prüfung durchgeführt am: **9. Mai 1995**
3.2.3 Ort der Prüfung: **GD PTT, Zikadenweg 35, 3000 Bern 29**
3.2.4 Prüfung ausgeführt durch: **H. Ruchti, FE 67**
3.2.5 weitere anwesende Personen: **Hrn. Girardin, Fa. BREITLING
Hrn. Schneider, Fa. BREITLING**

3.3 Prüfgrundlage

-Bakom 337 / 1.5

Ausgabe 2: 9. Dez. 1994

Provisorische Technische Anforderungen für Emergency Position Indicating Radio Beacons (EPIRBs) die auf den Frequenzen 121,5 MHz und 243 MHz betrieben werden.

-ETS 300 152

December 1991

Maritime Emergency Position Indicating Radio Beacons (EPIRBs) intended for use on the frequency 121,5 MHz and 243 MHz for homing purposes only.

-CCIR Recomendation 690

1990

Transmission characteristics of Emergency Position - Indicating Radio Beacons (EPIRBs) operating on carrierfrequencies of 121,5 MHz and 243 MHz.

TELECOM  Forschung und Entwicklung Teilnehmerrausrüstungen (FE 6)	Titel: Prüfbericht		
	Dokument-Nr.: FE 67.5032 B	Datum: 11.5.1995	Seite: 5 von 16

4. Ausgeführte Messungen und Prüfergebnisse

Kapitel wie BAKOM 337 / 1.5		Kapitel und Seiten im vorliegenden Prüfbericht		
		Kapitel	Seite	erfüllt
	Prüfresultate	5.	7	-
	Sendeleistung ERP	5.1	7	*
3.1	Antennenpolarisation	5.2	7	Ja
3.2	Arbeitsfrequenzen u. Frequenzgenauigkeit	5.3	8	Ja
3.3	Sendespektrum	5.4	8	Ja
3.4	Modulation	5.5	9	-
	Modulationsart	5.5.1	9	Ja
	Modulationsindex	5.5.2	9	Ja
	Modulationsfrequenzen	5.5.3	10	Ja
	Modulations Sweep - Time	5.5.4	10	Ja
	Modulations Tonsequenz	5.5.5	11	Ja
	Duty Cycle	5.5.6	11	Ja
3.5	Störstrahlung ERP	5.6	12	Ja

* keine Forderung

5. Prüfresultate

5.1 Sendeleistung

Sendeleistung ERP (Frequenz: MHz)	35.5 mW
Pflichtwert	-*

*keine Forderung

Prüfmittel: 02/03.....

5.2 Antennenpolarisation

BAKOM 337 / 1.5 3.1

Erfüllt	Ja*
Pflichtwert	vertikal

Prüfmittel: Sichtkontrolle.....

* Da die Uhr mit dem Notsender am Handgelenk getragen wird, sind alle Antennenpolarisationen zwischen vertikal und horizontal möglich.

TELECOM Forschung und Entwicklung Teilnehmerrausrüstungen (FE 6)	Titel: Prüfbericht		
	Dokument-Nr.:	FE 67.5032 B	Datum: 11.5.1995 Seite: 7 von 16

5.3 Arbeitsfrequenzen und Frequenzgenauigkeit

BAKOM 337 / 1.5 3.2

Nennfrequenz	121.375 MHz
Frequenzabweichung	+ 1.124 kHz
Pflichtwert:	121.5 MHz
	243.0 MHz
	± 3.5 kHz
	± 7.0 kHz

Prüfmittel: 01.....

5.4 Sendespektrum

BAKOM 337 / 1.5 3.3

30 % Power Bandbreite	± 8,75 Hz
Pflichtwert:	± 30 Hz
121.5 MHz	± 60 Hz
243.0 MHz	

Prüfmittel: 01/06.....

TELECOM  Forschung und Entwicklung Teilnehmerausrüstungen (FE 6)	Titel: Prüfbericht		
	Dokument-Nr.: FE 67.5032 B	Datum: 11.5.1995	Seite: 8 von 16

5.5 Modulation

5.5.1 Modulationsart

BAKOM 337 / 1.5 3.4

Modulationsart	AM (A3X)
Pflichtmodulation	AM (A3X)

Prüfmittel: 01/08.....

5.5.2 Modulationsindex

BAKOM 337 / 1.5 3.4

Modulationsindex	0.94
Pflichtwert	> 0.85

Prüfmittel: 09/10.....

5.5.3 Modulationsfrequenzen

BAKOM 337 / 1.5 3.4

Höchste Modulationsfrequenz (NF high)	1250 Hz
Tiefste Modulationsfrequenz (NF low)	415 Hz
Frequenzspanne (NF Δ)	835 Hz
Pflichtwert:	
NF high	≤ 1600 Hz
NF low	≥ 300 Hz
NF Δ	≥ 700 Hz

Prüfmittel: 01.....

5.5.4 Modulations Sweep Time

BAKOM 337 / 1.5 3.4

Sweep Time	367 msec*
Pflichtwert:	0.25...0.5 sec (2 bis 4 mal/Sek)

Prüfmittel: 01.....

* 2 x NF-Sweep (2 x 367 msec) dann 1.46 sec Pause

5.5.5 Modulations Tonsequenz

BAKOM 337 / 1.5 3.4

Tonsequenz	high → low
Pflichtwert	high → low

Prüfmittel: 08.....

5.5.6 Duty Sycle

BAKOM 337 / 1.5 3.4

Verhältnis positiver zu negativer Halbwelle	52.7 %
Pflichtwert	> 33 %

Prüfmittel: 08/11.....

5.6 Störstrahlung ERP

BAKOM 337 / 1.5 3.5

Störfrequenz:	108 MHz - 137 MHz 156 MHz - 162 MHz 406 MHz - 406.1 MHz 450 MHz - 470 MHz	< 2 nW < 2 nW < 2 nW < 2 nW
Pflichtwert:	108 MHz - 137 MHz 156 MHz - 162 MHz 406 MHz - 406.1 MHz 450 MHz - 470 MHz	≤ 25 µW ≤ 25 µW ≤ 25 µW ≤ 25 µW

Prüfmittel: 02/03/04/05/06.....

TELECOM  Forschung und Entwicklung Teilnehmerausrüstungen (FE 6)	Titel: Prüfbericht		
	Dokument-Nr.:	FE 67.5032 B	Datum: Seite: 11.5.1995 12 von 16

6. Prüfmittel

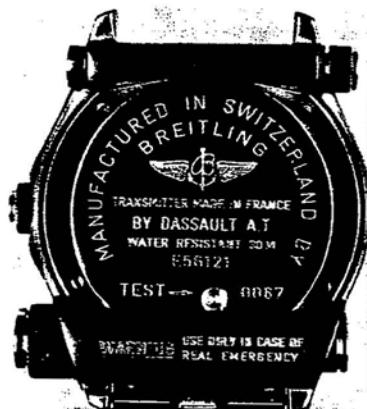
No	Gerätebezeichnung	Typ	Hersteller	Serie Nr.	Inventar Nr.
01	Spektrumanalyzer	hp 70908 A			16239
02	Echofreier Messraum		Ray Proof		Fixe. Inst.
03	Messantenne 25...200 MHz	3104 C	Emco		16798
04	Messantenne 0.2...4 GHz	3147	Emco		16800
05	Spektrumanalysator	hp 8566	HP		9139
06	hp-IB Steuerrechner	hp 320	HP		10735
07	10 MHz Cäsiumnormal	hp 5071	HP	3249A00354	
08	Kontrollempfänger	A0R-3000 A			17452
09	Modulationsanalyser	hp 8901 A	HP		4320
10	HF Generator	SMHU	Rus		25304
11	KO	PM 3335	Philips		16242
12					
13					
14					
15					
16					
17					
18					
19					
20					

7. Fotos

Frontseite



Rückseite



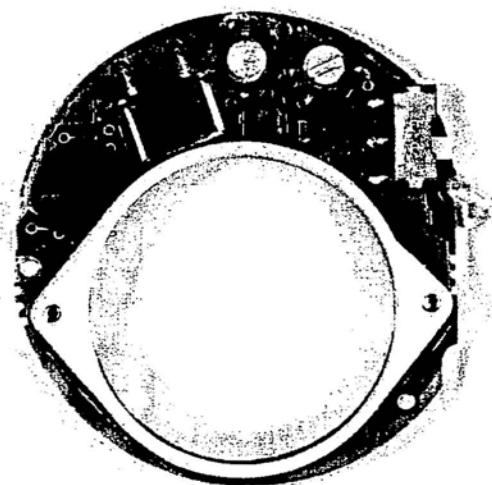
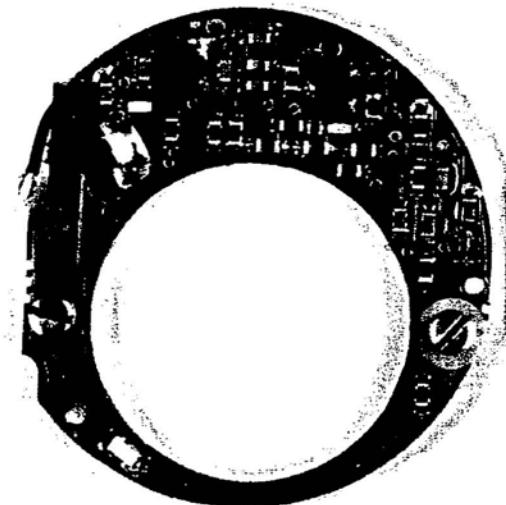
Titel: Prüfbericht		Dokument-Nr.: FE 67.5032 B	Datum: 11.5.1995	Seite: 14 von 16
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Frontseite mit Antenne



Titel: Prüfbericht			
Dokument-Nr.:	FE 67.5032 B	Datum:	11.5.1995

Print



2

TELECOM

To: BREITLING SA
Attn.: J.-P. Girardin
2540 Grenchen

Our ref.: Gu/nyf Auftrag Nr. 60.00540

Recall: +41 31 3389300

RECEIVED 16. Okt. 1995

Date: 19.6.95

Certification test

TEST RECEIVER REF. 109.121

Dear Mr. Girardin,

Please find enclosed the under-mentioned test report in respect of the equipment in question. We found that the tests carried out by us met all technical standards of relevance to the approval registration.

You, or the entitled person, may now apply to the Bundesamt für Kommunikation (BAKOM), Zukunftstrasse 44, 2503 Biel, for a Swiss approval in respect of your equipment, i.e. using the enclosed report, and any other documents that you may have which serve to prove conformance with the other standards required for an approval. As far as we know, it takes some 3 weeks for an application for an approval (i.e. submitted in full) to be dealt with.

We now take the liberty to bill you for the technical clarifications, the cost of testing and the test reports. BAKOM will send you its own bill for administrative fees.

We thank you for your assignment, and the confidence you have thus shown in us.

Yours faithfully,

Subscriber Equipment Department

R. Guyan

Encs.:

- Test report (2 copies): FE 67.5033 B
- Invoice
- Application form

ENCLOSURE

Generaldirektion PTT
Direktion Forschung und
Entwicklung
Technisches Zentrum
Ostermundigenstrasse 93
3000 Bern 29

Telefon 031 338 29 80
Telefax 031 338 57 47
Telex 911 031 vptt ch
Postkonto 30-1565-7

TELECOM PTT

Ihr Zeichen
Votre référence
Your reference

Ihre Nachricht vom
e communication du
Your communication

Unser Zeichen
Notre référence
Our reference

Gu/nyf Auftrag Nr. 60.00540

Rückruf
Rappel
Recall

+41 31 3389300

Datum
Date
Date

19.6.1995

BREITLING SA
Herrn J.-P. Girardin
Postfach 1132
2540 Grenchen

Zulassungsprüfung TEST RECEIVER REF. 109.121

Sehr geehrter Herr Girardin

Als Beilage erhalten Sie den unten aufgeführten Prüfbericht für das erwähnte Gerät. Wir konnten feststellen, dass in bezug auf die bei uns durchgeföhrten Prüfungen die zulassungsrelevanten, technischen Anforderungen erfüllt sind.

Mit dem beigelegten Bericht und gegebenenfalls weiteren bereits in Ihrem Besitz befindlichen Dokumenten, mit welchen Sie die Erfüllung der übrigen zulassungsrelevanten Anforderungen nachweisen, können Sie bzw. der Berechtigte nun beim Bundesamt für Kommunikation (BAKOM), Zukunftstrasse 44, 2503 Biel, die CH-Zulassung für Ihr Gerät beantragen. Für ein vollständig eingereichtes Zulassungsgesuch beträgt die Behandlungszeit gemäss unseren Informationen ca. 3 Wochen.

Wir gestatten uns, Ihnen für die technischen Abklärungen, den geleisteten Prüfaufwand und die Prüfberichte Rechnung zu stellen. Das BAKOM wird seine Verwaltungsgebühren separat verrechnen.

Wir danken Ihnen für den Auftrag und das uns damit entgegengebrachte Vertrauen.

Mit freundlichen Grüßen

Teilnehmerausrüstungen



R. Guyan

Beilagen:

- Prüfbericht (2 Ex.): FE 67.5033 B
- Rechnung
- Anmeldeformular



Generaldirektion PTT
Forschung und Entwicklung
Teilnehmerausrüstungen (FE 6)
CH-3000 Bern 29

Telefon +41 (0)31 338 93 00
Telefax +41 (0)31 338 99 04

Prüfbericht

Dokument-Nr.: **FE 67.5033 B** Datum: **7.6.1995**
Seite 1 von: **10** Beilagen: -
Auftrags-Nr.: **60.0054**



STS 041 T

S Schweizerischer Prüfstellendienst
T Service suisse d'essai
S Servizio di prova in Svizzera
Swiss Testing Service

Funkgerätetechnik

Berechtigter: **BREITLING SA, Herrn J.-P. Girardin, Postfach 1132, 2540 Grenchen**
(Eigentümer des Prüfberichts) **Tel. 065 51 11 31 Fax. 065 52 07 55**

Prüfgegenstand: **Test Receiver Ref. 109.121**

Hersteller: **BREITLING SA
2540 Grenchen**

Fachgebiet: **aeronautical, radio, ILS, VOR, VHF communication**

Prüfgrundlage/Norm: **BAKOM SR 784.103.12 / 1.7 Ausgabe 2: 1. Jan. 1995**
Technische Anforderung für Funkanlagen der Flugsicherung im
Frequenzbereich 108 MHz bis 137 MHz sowie andere Funkanlagen im
Frequenzbereich 30 MHz bis 1000 MHz, die mit AM betrieben werden.
Vollständige Prüfung des Empfängers nach obenstehender Prüfgrund-
lage

Prüfergebnis: Der Prüfgegenstand erfüllt die Anforderungen im obgenannten Fachgebiet
gemäss angegebener Prüfgrundlage und beschriebenen Prüfumfang:
ja () nein (-)

Der Sachbearbeiter (Name, Dienststelle, Visum): **H. Ruchti, FE 67** *Rev*

Der Fachbereichsleiter (Dienststelle, Visum): **FE 67** *Mg*

Der Prüfstellenleiter (Dienststelle, Unterschrift): **FE 6** *i. A. H.R. Meier*

Hinweise:

Der Prüfling ist ein Testempfänger für den Sender "BREITLING EMERGENCY E 56 121" zu kontrollieren. (FE 67.5032 B).

Inhalt

- 1. Referenzen**
- 2. Angaben zum Prüfgegenstand**
 - 2.1 Beschreibung des Prüfgegenstandes
 - 2.2 Kennzeichnung am Prüfgegenstand
 - 2.3 Modifikation am Prüfgegenstand
 - 2.4 Parametereinstellung am Prüfgegenstand anlässlich der Prüfung
 - 2.5 Technische Angaben zum Prüfgegenstand (Herstellerangaben)
- 3. Angaben zur Prüfung**
 - 3.1 Vorakten
 - 3.2 Prüfung
 - 3.3 Prüfgrundlage
- 4. Ausgeführte Messungen und Prüfergebnisse**
- 5. Prüfresultate**
- 6. Prüfmittel**
- 7. Photos der Anlage**

Titel: Prüfbericht			
Dokument-Nr.:	FE 67.5033 B	Datum:	7.6.1995

1. Referenzen

-BAKOM SR 784.103.12/1.7

Ausgabe 2: 1. Januar 1995

Technische Anforderungen für Funkanlagen der Flugsicherung im Frequenzbereich 108 MHz bis 137 MHz sowie andere Funkanlagen im Frequenzbereich 30 MHz bis 1000 MHz, die mit Amplitudenmodulation betrieben werden

-ETS 300 086

TELECOM Forschung und Entwicklung Teilnehmerausrüstungen (FE 6)	Titel: Prüfbericht		
	Dokument-Nr.:	Datum:	Seite:
	FE 67.5033 B	7.6.1995	3 von 10

2. Angaben zum Prüfgegenstand

2.1 Beschreibung des Prüfgegenstandes

Testempfänger für den Sender "Breitling Emergency Uhr" zu kontrollieren. (FE 67.5032 B)

2.2 Kennzeichnung am Prüfgegenstand

BREITLING, Freq. 121.5 MHz

TEST RECEIVER, USE ONLY FOR TESTING THE EMERGENCY WATCH

Made by DASSAULT A.T. FOR BREITLING REF 109.121

2.3 Modifikationen am Prüfgegenstand anlässlich der Prüfung

Für die Prüfung wurde die HF - Abschirmung verbessert.

2.4 Parametereinstellungen am Prüfgegenstand anlässlich der Prüfung

keine

2.5 Technische Angaben zum Prüfgegenstand (Herstellerangaben)

Markenbezeichnung: **BREITLING**

Typenbezeichnung: **Test Receiver Ref. 109.121**

Art: **Empfänger**

Frequenzbereich: **121.5 MHz**

Schaltbare Kanäle: **1**

Modulationsart: **AM**

Frequenzaufbereitung: **Quarz (fq = fe - ZF)**

ZF: **455 kHz**

Stromversorgung: **Batterie (4x1.5 V)**

Konfiguration Prüfling: **Empfangsfrequenz 121.375 MHz**

3. Angaben zur Prüfung

3.1 Vorakten

3.1.1 Anmeldung zur Prüfung

29.5.1995

Auftraggeber:	Berechtigter (Eigentümer des Prüfberichtes):
BREITLING SA Herrn J.-P. Girardin Postfach 1132 2540 Grenchen Tel. 065 51 11 31 Fax. 065 52 07 55	identisch mit Antragsteller

3.1.2 Frühere Berichte der PTT-Prüfstelle:
(im Fachgebiet und zum Prüfgegenstand)

**Sender : FE 67.5032 B vom 11.5.1995
(BREITLING EMERGENCY E 56 121)**

3.2 Prüfung

- 3.2.1 Eingang des Prüfgegenstandes: **31.5.1995**
- 3.2.2 Prüfung durchgeführt am: **6.6.1995**
- 3.2.3 Ort der Prüfung: **GD PTT, Zikadenweg 35, 3000 Bern 29**
- 3.2.4 Prüfung ausgeführt durch: **H. Ruchti, FE 67**
- 3.2.5 weitere anwesende Personen: **keine**

3.3 Prüfgrundlage

- BAKOM SR 784.103.12 /1.7 Ausgabe 2: 1. Januar 1994
- ETS 300 086

TELECOM  Forschung und Entwicklung Teilnehmerausrüstungen (FE 6)	Titel: Prüfbericht	Dokument-Nr.: FE 67.5033 B	Datum: 7.6.1995	Seite: 5 von 10
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4. Ausgeführte Messungen und Prüfergebnisse

Kapitel BAKOM SR 784.103.12/1.7		Kapitel und Seiten im vorliegenden Prüfbericht		
		Kapitel	Seite	erfüllt
	Prüfresultate	5	7	-
3.3	Empfänger	5.1	7	-
3.3.1	abgestrahlte Störstrahlung	5.1.1	7	Ja

5. Prüfresultate

5.1 Empfänger BAKOM SR 784.103.12 / 1.7 Pkt. 3.3

5.1.1 Störstrahlung Empfänger (Empfangsfrequenz 121,375 MHz)

Störfrequenz (MHz)	Strahlungsleistung ERP (nW)		
120.918	0.001		
241.846	0.002		
483.673	0.013		
1088.264	0.055		
1209.183	0.107		
1330.102	0.129		
Messunsicherheit	± 4 dB		

Pflichtwert: BAKOM SR 784.103.12 / 1.7 Pkt. 3.3.1.2, Tabelle 4

Frequenzbereich	30 MHz bis 1 GHz	> 1 GHz bis 4 GHz
Pflichtwert	≤ 2.0 nW	≤ 20.0 nW

Eingesetzte Prüfmittel 1 / 2 / 3 / 4 / 5 / 6.....

6. Prüfmittel

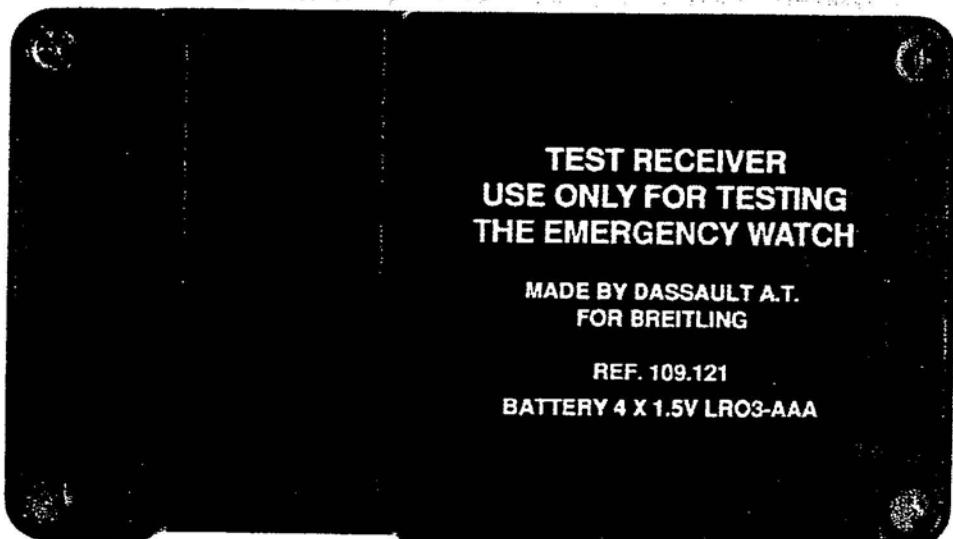
Nr	Prüfmittel	Typ	Hersteller	Serienr.	Inv.nr.
01	Echofreier Messraum		Ray Proof		Fixe Inst.
02	Messantenne 25... 200 MHz	3104 C	Emco		16798
03	Messantenne 0.2...4 GHz	3147	Emco		16800
04	Spektrumanalyzer	hp 8566	HP		9139
05	hp-IB Steuerrechner	hp 320	HP		10735
06	10 GHz Cäsiumnormal	hp 5071	HP	3249A00354	

7. Fotos der Anlage

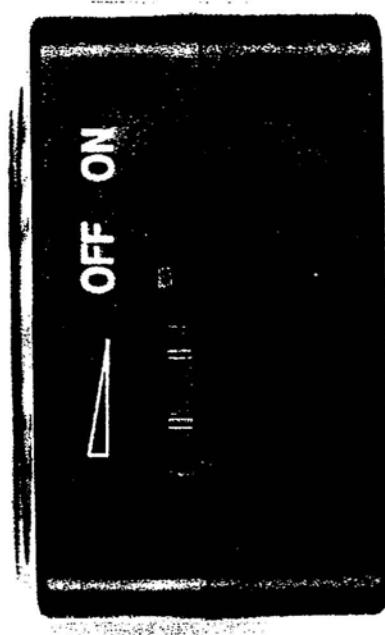
Oberseite



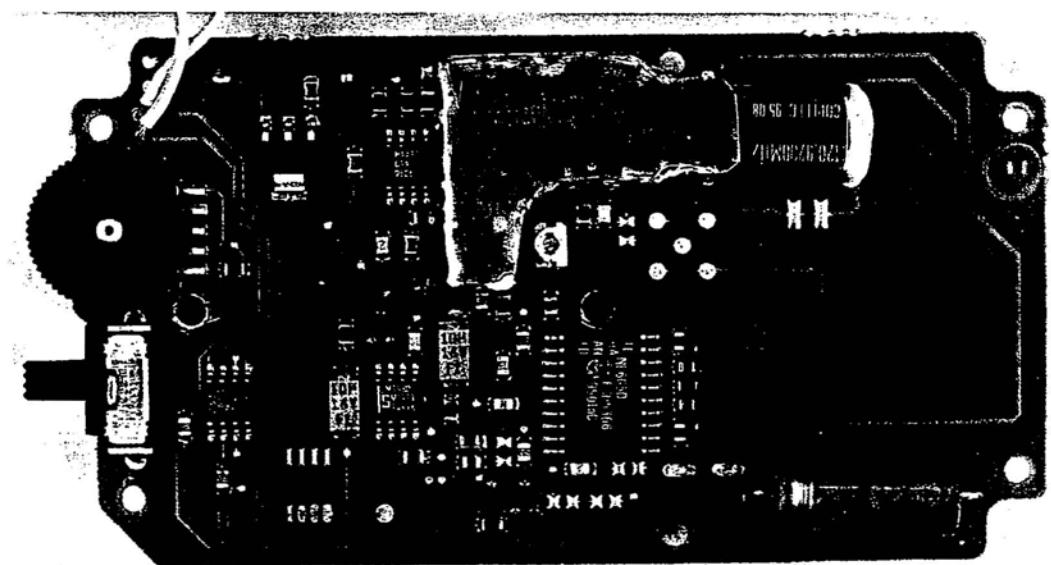
Unterseite



Seitenansicht



Print



Titel: Prüfbericht		Datum:	Seite:
Dokument-Nr.:	FE 67.5033 B	7.6.1995	10 von 10

3

RECEIVED: 9 May 1996

Breitling SA
Monsieur Jean-Paul Girardin
Postfach 1132
2540 Grenchen

Biel, 6 May 1996

Originator:	Tel. nr.:	Our ref.:	Your ref.:
Michael Frank	032/28.55.78	tc/302.2/frm	

Breitling Emergency - Meeting held on 29 April 1996, in Biel

Dear Mr. Girardin,

On the occasion of the meeting held on 29.4.96 between Breitling, BAZL and BAKOM we had the opportunity to see a demonstration of the Breitling Emergency, and try it out for ourselves. We thank you for this demonstration, and our talk.

During this demonstration and the discussion that followed the central question was whether the Breitling Emergency counts as "set-up" or "not set-up" in the displayed state ready for sale.

The term 'Erstellen' (to set up) is defined in the federal court decision BGE 107 IV 152ff as "... (establishing a connection to the current source by a simple procedure ...". This definition should be accepted.

BAKOM has conferred with BAZL and come to the conclusion that a Breitling Emergency ready to be sold has to be classed as 'not-setup', by virtue of this definition and in consideration of the fact that

- The manipulations required for transmitting are more complicated than the simple operation required in BGE 107 IV 152ff;
- Using the equipment causes self-destruction of the emergency transmitter;
- A repetitive operation (on, off, on, off, ...) is therefore not possible;

- Which necessitates returning the watch to the factory for repair, this being very costly (some Fr. 2500);
- The Breitling Emergency may be sold only by specially-trained points of sale, to target customers;
- The manufacturer knows every individual customer by name;
- The potential for mis-use can be regarded as being very small;
- The Breitling Emergency is intended only to save life and to facilitate searching and rescue operations.

We would therefore ask you not to use the advertising message "... very easy to use ..." or some similar expression.

Please find enclosed the amended approval; its number remains the same.

Kindly note its contents. We remain,

Yours faithfully,

Bundesamt für Kommunikation

(signed)

Marc Furrer
Director

Enc: New certification

c.c.:

- Anton Cottier, Attorney at Law, Grands Places 14, 1701 Fribourg
- Bundesamt für Zivilluftfahrt (Martin Ryff, Rechtsdienst)

BREITLING S.A.
Mr. J.-P. Girardin
Technical Director
Postfach 1132
CH-2540 Grenchen

Biel, 2.5.96

Originator: Tel. Nr.: Our ref.: Your ref.:
Thierry Rossé +41 (01)32 28 55 19 323.1/95.0559. F.P J.P. Girardin

Re: Order of Approval

Dear Sirs,

Please find enclosed the Order of Approval in regard to your application dated 22.6.95.

We would like to inform you that:

1. Art. 21 of the Verordnung über die Teilnehmeranlagen (TAV) (regulations governing subscribers' equipment) requires that the registered subscriber's installation must be identified with the following permanent, and easy to read, markings: registration number, make or mark of the manufacturer, type designation and serial or production batch number;
2. You must inform BAKOM of all changes to the identification per Art. 21 TAV, to your company, or to your address;
3. The registration is made out in your name and is not transferable, and you have the responsibility to ensure that all commercialized systems coming under this registration comply in every respect with those that are registered;
4. Each and every alteration and every application of the subscriber's installation different from what's on the registration certificate must be reported to BAKOM; a new registration may be called for.
5. BAKOM is entitled to check any time whether the subscriber's equipment that the licensee markets, or may market, as approved equipment complies with TAV, and to demand information about this from the licensee;

6. You will be sent an invoice by separate mail in respect of the administration charge, stated on the registration certificate.

We would ask you to use "*BAKOM-approved*" in your advertisements.

We trust we have helped you with this information, and meantime remain,

Yours faithfully,

Bundesamt für Kommunikation
Registration of Subscribers' Installation Department

p.p. Martin Kilchsperger
Deputy Departmental Head

Encs.:

- Certificate of Registration
- Application form for registration

Order of Approval

By reason of Art. 34 ff of the telecommunications law (SR 784.10) and of the regulations governing subscribers' installations (SR 784.103.1) the Bundesamt für Kommunikation hereby decrees the following:

The applicant

BREITLING S.A.

2540 Grenchen

Switzerland

is hereby **granted approval** in respect of the subscribers' equipment.

Mark or indication of
the manufacturer:

BREITLING

Item: **Wrist watch with transmitter / test receiver**

Type description: **Emergency / Test receiver**

Item number: **E56121 / 109.121**

Manufacturer: **BREITLING S.A., Grenchen, Switzerland.**

Technical Characteristics:

121.5 MHz; ERP 50 mW; 1 Channel; AM (A3X)

Test Report / Certificate of Conformity of the Manufacturer

Report/Cert. Nr.	Test Lab / Manufacturer	Date
FE 67.5032 B	Telecom / PTT	11.5.1995
FE 67.5033 B	Telecom / PTT	7.6.1995

Note:

This registration substitutes that of 4.8.95.

Registration Number:

BAKOM 95.0559.F.P

Validity in respect of other subscriber's installations

The approved subscriber's installation is the prototype of a batch and applies to other equipment of the licensee which conforms in every respect with the approved prototype.

Reasons:

The subscriber equipment complies with the relevant technical standards.

Fees:

An administrative fee is levied in pursuance of Art. 2 para. 1 of the regulations of the EVED relating to subscriber installations (SR 784.103.11).

Fee	SFr.	0.00
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Right of Appeal:

A written appeal against this order, stating the reasons, may be submitted within 30 days of its disclosure to the Eidgenössisches Verkehrs- und Energiewirtschaftsdepartement, Rechtsdienst, Bundeshaus Nord, 3003 Bern, Switzerland.

Biel, 2.5.1996

Bundesamt für Kommunikation
Approval of Subscriber Installations Department

Deputy Departmental Head

ENCLOSURE



BAKOM Bundesamt für Kommunikation
OFICOM Office fédéral de la communication
UFICOM Ufficio federale delle comunicazioni
UFICOM Uffizi federali di comunicazioni

BUCHSTABE 9. Mai 1996

Breitling SA
Monsieur Jean-Paul Girardin
Postfach 1132
2540 Grenchen

Biel, 6. Mai 1996

Sachbearbeiter/in : Tel. Nr. :
Michael Frank 032/28.55.78

Unser Zeichen :
tc/302.2/frm

Ihr Zeichen :

Breitling Emergency - Sitzung vom 29. April 1996 in Biel

Sehr geehrter Herr Girardin

Anlässlich des Treffens vom 29.4.1996 zwischen der Firma Breitling, dem BAZL und dem BAKOM, hatten wir Gelegenheit, einer Demonstration der Breitling Emergency beizuwohnen und diese auch selber auszuprobieren. Für die Demonstration und das Gespräch danken wir Ihnen.

Bei dieser Demonstration und der anschliessenden Diskussion stand die Frage im Zentrum, ob die Breitling Emergency im gezeigten und verkaufsbereiten Zustand als "erstellt" oder "nicht-erstellt" gilt.

Der Begriff Erstellen ist im massgebenden Bundesgerichtsentscheid (BGE 107 IV 152ff) mit "... die Verbindung mit der Stromquelle durch einen einfachen Handgriff leicht hin [herstellen] ..." definiert. Von dieser Umschreibung ist auszugehen.

Aufgrund dieser Ausgangslage und unter Berücksichtigung,

- dass die zum Senden notwendigen Manipulationen komplizierter sind als der im BGE 107 IV 152ff geforderte einfache Handgriff;
- dass zudem die Benützung zur Selbstzerstörung des Notfallsenders führt;
- dass folglich kein wiederholbarer Betrieb (on, off, on, off, ...) möglich ist;
- dass deshalb die Uhr zur Wiederherstellung ins Werk zurückgegeben werden muss, was mit sehr hohen Kosten (ca. Fr. 2'500.-) verbunden ist;

- dass ausserdem die Breitling Emergency nur durch spezifisch geschulte Verkaufspunkte an ein gezieltes Publikum verkauft wird;
- dass jeder einzelne Käufer dem Hersteller namentlich bekannt ist;
- dass somit das Missbrauchspotential als extrem gering eingestuft werden kann;
- dass die Breitling Emergency letztlich bezweckt Leben zu retten und Such- und Rettungsaktionen aktiv zu unterstützen;

gelangt das BAKOM nach Absprache mit dem BAZL zum Schluss, die Breitling Emergency im verkaufsbereiten Zustand als nicht-erstellt zu qualifizieren.

In diesem Zusammenhang bitten wir Sie, die Werbeaussage " ... äusserst einfachen Gebrauch ..." oder ähnliches nicht mehr zu benutzen und in Zukunft zu unterlassen.

In der Beilage übermitteln wir Ihnen die modifizierte Zulassungsverfügung. Die Zulassungsnummer bleibt gleich.

Wir bitten Sie um Kenntnisnahme und verbleiben

Mit freundlichen Grüßen

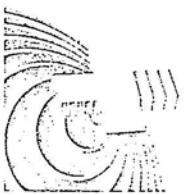
Bundesamt für Kommunikation



Marc Furrer
Direktor

Beilage: Neue Zulassungsverfügung

Kopien: - Anton Cottier, Rechtsanwalt, Grands Places 14, 1701 Fribourg
- Bundesamt für Zivilluftfahrt (Marin Ryff, Rechtsdienst)



BAKOM Bundesamt für Kommunikation
OFCOM Office fédéral de la communication
UFCOM Ufficio federale delle comunicazioni
UFCOM Uffizi federali di comunicazioni

BREITLING S.A.
Monsieur J-P. Girardin
Directeur technique
Postfach 1132
CH-2540 Grenchen

Biel, den 02.05.1996

Sachbearbeiter/in: Tel.Nr.: Unser Zeichen: Ihr Zeichen:
Thierry Rossé +41 (0)32 28 55 19 323.1/95.0559.F.P J.P. Girardin

Zulassungsverfügung

Sehr geehrte Damen und Herren

In der Beilage erhalten Sie die Zulassungsverfügung betreffend Ihr Gesuch vom 22.06.1995.

Wir machen Sie im übrigen darauf aufmerksam, dass

1. die zugelassene Teilnehmeranlage gemäss Art. 21 der Verordnung über die Teilnehmeranlagen (TAV) dauerhaft und leicht lesbar mit der Zulassungsnummer, der Marke oder der Bezeichnung des Herstellers, der Typenbezeichnung und der Fabrikations- oder Seriennummer gekennzeichnet werden muss;
2. Sie dem BAKOM alle Änderungen der Kennzeichnung nach Art. 21 TAV, Ihrer Firma oder Ihrer Adresse melden müssen;
3. die Zulassung auf Ihren Namen ausgestellt und nicht übertragbar ist und dass Sie damit insbesondere die Verantwortung tragen, dass alle gestützt auf diese Zulassung kommerzialisierten Anlagen mit der zugelassenen in allen Teilen übereinstimmen;
4. jede Änderung und jede von der Zulassungsverfügung abweichende Anwendung der Teilnehmeranlage dem BAKOM zu melden ist und gegebenenfalls einer neuen Zulassung bedarf;
5. das BAKOM jederzeit kontrollieren kann, ob die Teilnehmeranlagen die der Zulassungsinhaber als zugelassen in Verkehr bringen will oder in Verkehr gebracht hat, der TAV entsprechen und vom Zulassungsinhaber die dafür notwendigen Auskünfte verlangen kann;

6. Sie mit separater Post eine Rechnung für die in der Zulassungsverfügung festgelegte Verwaltungsgebühr erhalten.

Wir bitten Sie, in Ihrer Werbung "BAKOM - zugelassen" zu verwenden.

Wir hoffen, Ihnen mit diesen Angaben gedient zu haben und verbleiben

Mit freundlichen Grüßen

Bundesamt für Kommunikation
Sektion Zulassung Teilnehmeranlagen



i.V. Martin Kilchsperger
Stellvertretender Sektionschef

Beilagen: - Zulassungsverfügung
- Antragsformular für Zulassung



BAKOM Bundesamt für Kommunikation
OFCOM Office fédéral de la communication
UFCOM Ufficio federale delle comunicazioni
UFCOM Uffizi federali da comunicazioni

Zulassungsverfügung

gestützt auf Art.34 ff des Fernmeldegesetzes (SR 784.10) und auf
die Verordnung über Teilnehmeranlagen (SR 784.103.1)
verfügt das Bundesamt für Kommunikation:

Der Gesuchstellerin

BREITLING S.A.

2540 Grenchen, CH

wird die **zulassung erteilt** für die Teilnehmeranlage

Marke oder Bezeichnung **BREITLING**
des Herstellers

Objektart	Armbanduhr mit Sender / Testempfänger
Typenbezeichnung	Emergency / Test receiver
Artikelnummer	E56121 / 109.121
Hersteller	BREITLING S.A., Grenchen, CH

Technische Merkmale

121.5 MHz; ERP 50 mW; 1 Kanal; AM (A3X)

Prüfbericht bzw. Herstellerkonformitätszeugnis

Bericht/Zeugnis Nr.	Prüflabor/Hersteller	Datum
FE 67.5032 B	Telecom / PTT	11.05.1995
FE 67.5033 B	Telecom / PTT	07.06.1995

Bemerkung

Diese Zulassung ersetzt diejenige vom 4.08.1995.

Zulassungsnummer

BAKOM 95.0559.F.P

Geltung für weitere Teilnehmeranlagen

Die zugelassene Teilnehmeranlage ist das Muster einer Serie und gilt für weitere Anlagen des Zulassungsinhabers, die mit der zugelassenen in allen Teilen übereinstimmen.

Begründung

Die Teilnehmeranlage entspricht den einschlägigen technischen Anforderungen.

Gebühren

In Anwendung von Art. 2 Abs. 1 der Verordnung des EVED über Teilnehmeranlagen (SR 784.103.11) wird eine Verwaltungsgebühr erhoben.

Gebühr SFr. 0.00

Rechtsmittelbelehrung

Gegen diese Verfügung kann innerhalb von 30 Tagen seit ihrer Eröffnung beim Eidgenössischen Verkehrs- und Energiewirtschaftsdepartement, Rechtsdienst, Bundeshaus Nord, 3003 Bern, schriftlich und mit Begründung Beschwerde eingereicht werden.

Biel, den 02.05.1996

Bundesamt für Kommunikation
Sektion Zulassung Teilnehmeranlagen

O. Kilchsperger
i.V. Martin Kilchsperger
Stellvertretender Sektionschef

4

RECEIVED: 23 May 1996

Federal Office for Civil Aviation

Bern, 20 May 1996

Breitling SA
Attn.: Mr. J. Girardin
Postfach 1132
2540 Grenchen

Our ref.: 524.01-rf
Tel: 031 325 90 93

Breitling Emergency

Dear Mr. Girardin,

We refer to the meeting held on 29 April 96, in Biel, concerning the above, and BAKOM letter dated 6 May 1966, informing you that wearing a "Breitling Emergency" watch in Switzerland does not constitute the setting up of radio equipment. Consequently, all wearers of this watch do not require any special radio licence. Therefore, BAZL need not reply to the question as to whether the transmitter complies with the requirements of ICAO regarding emergency transmitters.

We too are glad that a solution has been found that allows the marketing in Switzerland of the product that serves to find survivors of flight accidents. Should Breitling SA want to design other products that affect protected areas in civil aviation, we would welcome the chance to be involved in this right from an early stage.

Yours faithfully,

Bundesamt für Zivilluftfahrt

The Director

(signed)

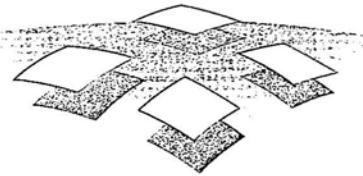
A. Auer

c.c.:

- Mr. Anton Cottier, Attorney at Law, Grands Places 14, 1701 Fribourg
- BAKOM, Attn.: Mr. Fürspr. M. Frank, Zukunftstr. 44, 2502 Biel

Internal: F - FM - due; FS - su; RD; thj

ENCLOSURE



BKOM/BL/2.B. Mai 336

Bern, 20. Mai 1996

I/Zeichen:

I/Schreiben

vom:

U/Zeichen: 524.01-rf

Tel.: 031 325 90 93

Breitling SA

z.H. Herrn J. Girardin

Postfach 1132

2540 Grenchen

Bundesamt
für Zivilluftfahrt
(BAZL)

Office fédéral
de l'aviation civile
(IFAC)

Ufficio federale
dell'aviazione civile
(IFAC)

Uffizi federali
da l'aviazion civila
(IFAC)

Federal Office
for Civil Aviation
(OCA)

Breitling Emergency

Sehr geehrter Herr Girardin

In rubrizierter Angelegenheit beziehen wir uns auf die Besprechung vom 29. April 1996 in Biel sowie auf das Schreiben des BAKOM vom 6. Mai 1996, worin Ihnen mitgeteilt wird, dass das Tragen der Uhr "Breitling Emergency" in der Schweiz den Tatbestand des Erstellens einer Funkanlage nicht erfüllt. Allfällige Träger der fraglichen Uhr benötigen demnach keine besondere Funkkonzession. Das BAZL hat sich daher nicht zur Frage zu äussern, ob die in der Uhr integrierte Sendeanlage den Anforderungen der ICAO bezüglich Notsender entspricht.

Wir freuen uns mit Ihnen, dass eine Lösung gefunden werden konnte, die es erlaubt, das bei Flugunfällen der Auffindung von Überlebenden dienende Erzeugnis in der Schweiz in den Handel zu bringen. Sollte die Firma Breitling SA in Zukunft weitere Produkte mit Auswirkungen auf geschützte Bereiche der Luftfahrt zu entwickeln beabsichtigen, würden wir es begrüssen, frühzeitig miteinbezogen zu werden.

Mit freundlichen Grüissen

Bundesamt für Zivilluftfahrt
Der Direktor

A. Auer

Kopie an:

- Herrn Anton Cottier, Rechtsanwalt, Grands Places 14, 1701 Fribourg
 - BAKOM, z.H. Herrn Fürspr. M. Frank, Zukunftstr. 44, 2502 Biel
- Intern: F - FM - due; FS - su; RD; thj

5

Berne, 21 January 1998
524-su

To whom it may concern

Breitling Emergency in Switzerland

The Federal Office for Communications and the Federal Office for Civil Aviation,
considering

- that the Breitling Emergency watch has been designed to save lives and to support search and rescue operations,

considering further

- a Federal Court decision (BGE 107 IV 152ff); and
- provisions 347 (S4.9) and N 2935 (S30.2) of the ITU Radio Regulations,

recognizing

- that the 121.5 MHz emergency transmitter can not easily be switched on;
- that the transmitter destructs itself when used;
- that therefore intermittent use is not possible;
- that the watch has to be refurbished by the manufacturer after use, which is quite expensive (about SFR 2'500);
- that the watch is sold only by special shops and to specific customers;
- that the manufacturer knows each customer's name; and
- that the potential for improper use can be considered as minimal,

have agreed

not to oppose the sale of the Breitling Emergency watch in Switzerland and not to issue any licences for its operation. However, the Federal Office for Communications has issued a type approval (BAKOM 95.0559.F.P, dated 2.5.1996).

P.O. BOX
2540 GRENCHEN
SWITZERLAND



Phone: +41/32/654'54'54
Fax: +41/32/654'54'01

II. EUROPEAN UNION / USA/JAPAN

AUSTRIA

1. Federal Gazette for the Republic of Austria, 73.Decree : The granting of general authorizations, 18.3.97 (Translation).
Enclosure : Bundesgesetzblatt für die Republik Oestereich, 73. Verordnung : Erteilung genereller Bewilligung (Original).

GERMANY

2. Test Report No.: 523-13g/00203/97, I-ETS 300 220, EMERGENCY, Bundesamt für Post und Telekommunikation, 16.12.97.
3. Test Report No.: 1388/00160/97, Vorgandsnr.: 63534, EMERGENCY, Bundesamt für Post und Telekommunikation, 16.12.97.
4. Test Report No.: 2_1291-A/99, FCC Rule 87.135-137 ; 87.139(h) ; 87.141(i), BREITLING EMERGENCY E56121, CETECOM ICT Services GmbH, 5.5.99.
5. General allocation of frequencies for use by specified radio equipment : No. 822 "Breitling Emergency", Posts and Telecommunications Regulatory Body, 26.1.98 (Certified translation with General allocation No. 822).
Enclosure : Allgemeinzuteilung von Frequenzen zur Nutzung durch bestimmte Funkanlagen: Nr. 822 "Breitling Emergency" (Original).
6. EC Type-Examination Certificate, Regulatory Authority For Telecommunications and Posts, 25.2.98.

UNITED KINGDOM

7. CAA Validation certification approval number : VC01144, CAA, 29.09.98.
8. Declaration of Design and Performance (DDP) No.100 Issue No.001, Breitling SA, Septembre 16, 1998.
9. Breitling Emergency Watch, Radiocommunications Agency, October 28, 1998.

P.O. BOX
2540 GRENCHEN
SWITZERLAND



Phone: +41/32/654'54'54
Fax: +41/32/654'54'01

EUROPEAN UNION

10. Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.
11. Declaration of Conformity, 2006/09/01, Breitling SA.

USA

12. FAA waiver, US Department of Transportation, May 21, 2000.
13. FCC, Breitling Emergency Watch Request for Waiver, July 19, 2000.
FCC, ORDER Permit Type Certification of Breitling Emergency, October 15, 2001.
FCC, Emergency Watch Registrations, June 4, 2002.

JAPAN

14. Notice to all Telecommunication Beurou branches, 2006/07/18, Ministry of Internal Affairs and Communications.

1

FEDERAL GAZETTE

FOR THE REPUBLIC OF AUSTRIA

1997 Volume

Published on 18th March 1997

Part II

73. Decree: The granting of general authorisations

73. Decree of the Federal Minister for Science and Trade, whereunder general authorisations will be granted

On the basis of § 8 Sect. 2 of the Telecommunications Law, BGBl No. 908/1993, last amended by federal law BGBl No. 201/1996, it is decreed that:

Article 1

Section 1

General authorisations without time limits

§ 1. With regard to the telecommunications equipment cited in **Annex 1**, general authorisation is granted to construct and operate it.

§ 2. With regard to the telecommunications equipment cited in **Annex 2**, general authorisation is granted to construct, operate and own it.

§ 3. With regard to the telecommunications equipment cited in **Annex 3**, general authorisation is granted to construct, operate, introduce it onto the market, sell and own it.

§ 4. With regard to the telecommunications equipment cited in **Annex 4**, general authorisation is granted to introduce it onto the market, sell and own it.

...

...

Annex 3

...

N Emergency radio transmitters

Radios

1. that are worn on the body,
2. have a nominal frequency of 121.5 MHZ,
3. have a maximum transmission output of 50 mW,
4. whose carrier frequency is amplitude modulated (with a modulation sampling cycle of at least 33%) and with a degree of modulation of at least 0.85,
5. whose transmission consists of a characteristic emergency radio signal which, through amplitude modulation of the carrier frequency, constantly attains a frequency in the range of 700 MHz in the frequency band between 1600 and 300 Hz, whereby the sweep speed must lie between two and four sweeps per second and
6. which will only be operated on board aircraft or ships in an emergency.

...

Annex 4

...

ENCLOSURE

BUNDESGESETZBLATT FÜR DIE REPUBLIK ÖSTERREICH

Jahrgang 1997

Ausgegeben am 18. März 1997

Teil II

73. Verordnung: Erteilung genereller Bewilligungen

73. Verordnung des Bundesministers für Wissenschaft und Verkehr, mit der generelle Bewilligungen erteilt werden

Auf Grund des § 8 Abs. 2 des Fernmeldegesetzes, BGBl. Nr. 908/1993, zuletzt geändert durch das Bundesgesetz BGBl. Nr. 201/1996, wird verordnet:

Artikel I

Abschnitt 1

Unbefristete generelle Bewilligungen

§ 1. Hinsichtlich der in **Anlage 1** genannten Fernmeldeanlagen wird die generelle Bewilligung zur Errichtung und zum Betrieb erteilt.

§ 2. Hinsichtlich der in **Anlage 2** genannten Fernmeldeanlagen wird die generelle Bewilligung zur Errichtung und zum Betrieb sowie zum Besitz erteilt.

§ 3. Hinsichtlich der in **Anlage 3** genannten Fernmeldeanlagen wird die generelle Bewilligung zur Errichtung und zum Betrieb, zur Einfuhr, zum Vertrieb und zum Besitz erteilt.

§ 4. Hinsichtlich der in **Anlage 4** genannten Fernmeldeanlagen wird die generelle Bewilligung zur Einfuhr, zum Vertrieb und zum Besitz erteilt.

Abschnitt 2

Befristete generelle Bewilligungen

§ 5. Personen, die keinen Hauptwohnsitz im Inland haben, wird unbeschadet der Funkempfangsanlagenverordnung, BGBl. Nr. 652/1996, für die Dauer von drei Monaten ab dem Tag der Einreise nach Österreich hinsichtlich der in **Anlage 5** genannten Funkanlagen die generelle Bewilligung zur Errichtung und zum Betrieb sowie zum Besitz erteilt.

§ 6. Personen, die keinen Hauptwohnsitz im Inland haben, wird unbeschadet der Funkempfangsanlagenverordnung, BGBl. Nr. 652/1996, die generelle Bewilligung zum Besitz von Funkanlagen, für die im Herkunftsstaat des Besitzers eine Bewilligung zum Betrieb erteilt wurde, für die Dauer von drei Monaten ab dem Tag der Einreise nach Österreich erteilt. Die Inbetriebnahme der Funkanlage auf österreichischem Bundesgebiet muß durch geeignete technische Vorkehrungen ausgeschlossen sein.

Abschnitt 3

§ 7. Den in den Anlagen enthaltenen Gerätebeschreibungen können auch Verhaltensvorschriften angefügt werden. Diese sind bei Ausübung der Bewilligung zu befolgen.

§ 8. Die in den Anlagen zitierten Unterlagen mit technischem Inhalt (Fernmeldetechnische Zulassungsbedingungen, Fernmeldetechnische Vorschriften) liegen beim Bundesministerium für Wissenschaft und Verkehr während der Amtsstunden zur Einsicht auf.

Artikel II

Mit dem Inkrafttreten dieser Verordnung tritt die Verordnung, mit der generelle Bewilligungen erteilt werden, BGBl. Nr. 228/1994, außer Kraft.

Einem

ANLAGEN – INHALTSVERZEICHNIS**Anlage 1**

- A Zeitzeichenfunkempfänger
- B Satellitenempfangsanlagen
- C Funkempfänger, die mit generell bewilligten Sendern zusammenarbeiten
- D Nebenstellenanlagen

Anlage 2

- A Funkfernsteuerungsanlagen mit kleiner Leistung
- B Füllstandsmeßgeräte
- C Funkfernsteuerungsanlagen in ISM-Frequenzbereichen
- D CB-Funkanlagen
- E Drahtlose lokale Netzwerke (RLAN)

Anlage 3

- A Lichtfunkanlagen
- B Einwegsprechfunkanlagen
- C Crash-Sender (Emergency Locator Transmitter – ELT)
- D Bewegungsmelder
- E Induktionsfunkanlagen
- F Funkfernsteuerungsanlagen in ISM-Frequenzbereichen
- G Alarmfunkanlagen auf Frequenzen unter 12 MHz
- H Digitale Europäische schnurlose Telekommunikationseinrichtungen
- I Drahtlose lokale Netzwerke (RLAN)
- J Transportable Satellitenfunkanlagen für Reportagezwecke (SNG-Funkanlagen)
- K Inmarsat- und EUTELTRACS Satellitenmobilkommunikationsgeräte
- L Funkanlagen geringer Leistung (LPD)
- M CB-Funkanlagen PR 27
- N Notfunksender

Anlage 4

- A Im Ausland zugelassene Funkanlagen
- B Satellitenfunkanlagen

Anlage 5

- A Funkanlagen zur Fernsteuerung von Fahrzeugmodellen
- B Funkempfangsanlagen
- C CB-Funkanlagen

Anlage 1**A Zeitzeichenfunkempfänger**

Funkanlagen, die ausschließlich zum Empfang des Zeitzeichenfunkdienstes auf der Frequenz 75,0 kHz und/oder 77,5 kHz ausgerüstet sind.

B Satellitenempfangsanlagen

Funkanlagen, die ausschließlich für den Empfang von Funkwellen geeignet sind, die

1. von Satelliten ausgesendet werden und
2. für den jeweiligen Benutzer bestimmt sind.

C Funkempfänger, die mit generell bewilligten Sendern zusammenarbeiten

Funkempfangsanlagen, die

1. der Elektromagnetischen Verträglichkeitsverordnung entsprechen und
2. mit einer in Anlage 3 lit B, D, E, F, G oder L beschriebenen Funkanlage zusammenarbeiten.

D Nebenstellenanlagen

Nebenstellenanlagen – das sind Vermittlungseinrichtungen mit Nebenanschlüssen –, die zur Verbindung mit Netzabschlußpunkten (§ 2 Z 7 Fernmeldegesetz 1993) bestimmt sind und die Anforderungen der „Fernmeldetechnischen Vorschrift für Telekommunikationsnebenstellenanlagen“ (FTV 313) erfüllen.

Anlage 2**A Funkfernsteuerungsanlagen mit kleiner Leistung**

Funkanlagen, die

1. den „Fernmeldetechnischen Zulassungsbedingungen für Funkfernsteueranlagen und -einrichtungen, die in Industriefrequenzbereichen und im 35-MHz-Bereich betrieben werden“ (V 0023) entsprechen,
2. eine äquivalente Strahlungsleistung von nicht mehr als 10 mW aufweisen,
3. vor dem 1. Juli 1995 eingeführt wurden,
4. vor dem 31. Dezember 1995 vertrieben wurden,
5. nur auf den folgenden Frequenzen arbeiten:

13,56 MHz	26,995 MHz	27,085 MHz	40,665 MHz
27,005 MHz	27,095 MHz	40,675 MHz	
27,015 MHz	27,105 MHz	40,685 MHz	
27,025 MHz	27,115 MHz	40,695 MHz	
27,035 MHz	27,125 MHz		
27,045 MHz	27,135 MHz		
27,055 MHz	27,145 MHz		
27,065 MHz	27,195 MHz		
27,075 MHz	27,255 MHz		

B Füllstandsmeßgeräte

Funkanlagen, die ausschließlich zur berührungslosen Füllstandsmessung bestimmt sind und sich zur Gänze innerhalb von allseitig geschlossenen metallischen Behältern befinden.

C Funkfernsteuerungsanlagen in ISM-Frequenzbereichen

Funkanlagen, die

1. zum Zweck der Fernsteuerung verwendet werden,
2. ausschließlich in den Frequenzbereichen 13,56 MHz, 27,12 MHz, 35 MHz, 40,68 MHz und 433,92 MHz arbeiten und
3. für die am 31. Dezember 1980 eine individuelle Bewilligung zur Errichtung und zum Betrieb bestanden hat.

D CB-Funkanlagen

Funkanlagen, die

1. einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Zulassungsbedingungen für Sprechfunkanlagen und -einrichtungen, die auf Industriefrequenzen betrieben werden“ (V 0057) erteilt wurde,
2. vor dem 1. August 1983 eingeführt oder vor dem 1. August 1984 vertrieben wurden und

3. für keine anderen als die folgenden Frequenzen ausgerüstet sind:

27,005 MHz	27,055 MHz	27,105 MHz
27,015 MHz	27,065 MHz	27,115 MHz
27,025 MHz	27,075 MHz	27,125 MHz
27,035 MHz	27,085 MHz	27,135 MHz
4. nur für den beweglichen Betrieb (tragbar oder in Fahrzeugen – ausgenommen Luftfahrzeuge – fest eingebaut) bestimmt sind,
5. sofern sie tragbar sind, eine äquivalente Strahlungsleistung von maximal 0,1 Watt aufweisen und deren Betrieb nur mit eingebauten Batterien (Akkumulatoren) und nur mit fest angebauter oder eingebauter Antenne möglich ist,
6. sofern sie in Fahrzeugen fest eingebaut sind,
 - 6.1 eine Senderleistung von maximal 0,5 Watt aufweisen,
 - 6.2 deren Stromversorgung nur aus der Fahrzeugbatterie erfolgt und keine Erhöhung der Senderleistung über den bei der Typenzulassung festgelegten Wert bewirkt,
 - 6.3 deren zugehörige Antenne am Fahrzeug angebracht ist,
 - 6.4 deren Antennenkabel vom Senderausgang bis zur Antenne aus einem Stück (ausgenommen passive Filterelemente) besteht.

Auf den Funkanlagen ist eine vom Bundesministerium für Wissenschaft und Verkehr aufgelegte Selbstklebeetikette anzubringen. Diese hat das Format 8×12 mm und zeigt auf gelbem Grund in schwarzem Druck das Emblem der Post- und Telegraphenverwaltung sowie die Blockbuchstaben „CB“. Zum ordnungsgemäßen Anbringen der Selbstklebeetiketten sind die Inhaber der Bewilligung zur Herstellung, zur Einfuhr bzw. zum Vertrieb von CB-Funkanlagen berechtigt und verpflichtet. Der Name des für die Anbringung der Etikette Verantwortlichen ist auf den Funkanlagen dauerhaft ersichtlich zu machen.

Vor dem 1. Jänner 1980 ausgestellte Bewilligungsbescheide sowie die Händlerbestätigungen ersetzen diese Kennzeichnung für die betreffende Funkanlage.

E Drahtlose lokale Netzwerke (RLAN)

Funkanlagen, die

1. einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Vorschrift für drahtlose lokale Netzwerke (RLAN) im Frequenzbereich 2,4000 GHz bis 2,4835 GHz“ (FTV 502) erteilt wurde, und
2. die vor dem 31. Dezember 1996 vertrieben wurden.

Ist die Funkanlage als Einschubkarte (plug-in radio device) ausgeführt, darf sie nur in den vom Hersteller als dafür geeignet erklärten Basiseinrichtungen (host equipment) betrieben werden. Hat die Funkanlage einen Anschluß für eine Antenne, darf sie nur mit einer Antenne betrieben werden, die vom Hersteller der Funkanlage als geeignet erklärt wurde.

Anlage 3

A Lichtfunkanlagen

Funkanlagen, bei denen die Übertragung ausschließlich mittels leitungsgebundener Lichtwellen

1. innerhalb eines Wohn-, Geschäfts- oder ähnlichen Raumes oder
2. für Zwecke der Fernsteuerung oder -messung oder
3. für Zwecke der automatischen Standortanzeige erfolgt.

B Einwegsprechfunkanlagen

Funkanlagen,

1. die einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Zulassungsbedingungen für Einwegsprechfunkanlagen“ (V 0058) oder „Fernmeldetechnischen Vorschrift für Einwegsprechfunkanlagen“ (FTV 558) erteilt wurde,
2. deren Sender eine fest eingebaute oder angebaute Antenne und keine Buchse für eine Antennenspeiseleitung aufweist,
3. die ausschließlich auf den im folgenden genannten Frequenzen, unter Einhaltung der maximal zulässigen Bandbreite und Strahlungsleistung, arbeiten:

Frequenzen (MHz)	Bandbreite (kHz)	Strahlungsleistung (W)
36,800	36	0,01
36,850	36	0,01
37,450	36	0,01
37,500	36	0,01
37,550	36	0,01
36,700	150	0,002
37,100	150	0,002
44,550	150	0,002
45,000	150	0,002

C Crash-Sender (Emergency Locator Transmitter – ELT)

Funkanlagen,

1. deren Nennfrequenz 121,5 und/oder 243,0 MHz und/oder 406,0 MHz beträgt,
2. die nur im Notfall automatisch oder von Hand aus an Bord von Luftfahrzeugen oder kurzzeitig zum Zweck der Funktionskontrolle in Betrieb genommen werden und
3. die von der Austro Control GmbH als hiefür geeignet erklärt wurden.

D Bewegungsmelder

Funkanlagen, die

1. einer Type angehören, für die nach dem 31. Dezember 1983 eine Typenzulassung auf Grund der „Fernmeldetechnischen Zulassungsbedingungen für Funkanlagen kleiner Leistung zur Erfassung von Bewegungsvorgängen“ (V 0034) oder der „Fernmeldetechnischen Vorschrift für Funkanlagen kleiner Leistung zur Erfassung von Bewegungsvorgängen“ (FTV 534) erteilt wurde und die
2. für den beweglichen Betrieb im Frequenzbereich 24,05 bis 24,25 GHz oder für den ortsfesten Betrieb bestimmt sind.

E Induktionsfunkanlagen

Funkanlagen,

1. die der Definition E1, E2, E3 oder E4 entsprechen,
2. die nur auf den nachstehenden Frequenzen arbeiten, und
3. bei denen, falls es sich um eine Anlage mit Induktionsschleife handelt, der Schleifenstrom multipliziert mit der Zahl der Schleifenwindungen, die nachstehend angegebenen Werte nicht überschreitet:

Frequenzen (kHz)	Schleifenstrom mal Windungszahl (AW)
0– 4	3
4– 8	1,8
8– 11	1,2
15– 32	0,8
32– 64	0,5
64–125	0,3
125–250	0,02

E1. Induktionsfunkanlagen, die einer der nachstehend angeführten Typen angehören:

CI 133 D	HF-DOLMETSCHERANLAGE
CO 343 B	PS 16
CO 343 L	RELA SEND 6/8
CO 344	RC 24 ST
CO 344 B	RC 24 STZ
CO 344 L	RC 25 S
CO 353 N	RC 65 S
CO 353 R	T 80
CO 354 B	T.12/S
CO 354 N	TC 3
CO 354 R	TELEBUTLER
CT 103 D	TELETRACER JUNIOR CT 201

CT 203 D	TELETRACER 10
CT 205 D	TELETRACER 50
CW 133 D	TORMATIC
D 701	TORMATIC MOD 4
DE R 1	TORMATIC – DELCO
EL 7390/00	TT 100-0 RS
ELA D 300	3 7309 015
FLS 10/50	3 7309 110
FLS 2/8	664 704
GMW-DRAHTLOS	664 705

E2. Kombinierte Induktionsfunkanlagen und Funkanlagen zur Erfassung von Bewegungsvorgängen, die einer der nachstehend angeführten Typen angehören:

DOUBLECHECKER II EB-6-1	EA-63 SENSORMAT
EA 40	EA-75 SHOPKEEPER
EA-50	

E3. Induktionsfunkanlagen, die einer Type angehören, für die nach dem 31. Dezember 1983 eine Typenzulassung auf Grund der „Fernmeldetechnischen Zulassungsbedingungen für Induktionsfunkanlagen und -einrichtungen“ (V 0025) oder der „Fernmeldetechnischen Vorschrift für Induktionsfunkanlagen und -einrichtungen“ (FTV 525) erteilt wurde.

E4. Induktionsfunkanlagen, die ausschließlich auf Frequenzen unter 9 kHz arbeiten, wie insbesondere Leitungs- und Metallsuchgeräte, oder bei denen die Übertragung von Sprache oder Musik in natürlicher Frequenzlage erfolgt, indem zur Aussendung an einem Niederfrequenzverstärker anstelle eines Lautsprechers eine Induktionsschleife und zum Empfang an einem Niederfrequenzverstärker anstelle eines Mikrofons eine Induktionsspule angeschaltet wird.

F Funkfernsteuerungsanlagen in ISM-Frequenzbereichen

Funkanlagen, die

1. einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Zulassungsbedingungen für Funkfernsteueranlagen und -einrichtungen, die in Industriefrequenzbereichen und im 35-MHz-Bereich betrieben werden“ (V 0023) oder der „Fernmeldetechnischen Vorschrift für Funkfernsteueranlagen und -einrichtungen, die in Industriefrequenzbereichen und im 35-MHz-Bereich betrieben werden“ (FTV 523) erteilt wurde, und die
 - 2.1 nur auf den in Tabelle 1 oder 2 dieser Zulassungsbedingungen angeführten Frequenzen arbeiten (dabei ist die Frequenz 433,925 MHz ausschließlich für Funkfernsteuerungsanlagen mit fallweisen Aussendungen, deren Dauer höchstens eine Sekunde beträgt, gestattet) oder
 - 2.2 nur auf den in Tabelle 3 dieser Zulassungsbedingungen angeführten Frequenzen arbeiten und ausschließlich der Fernsteuerung von Flugmodellen dienen.

G Alarmfunkanlagen auf Frequenzen unter 12 MHz

Funkanlagen, die einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Zulassungsbedingungen für Alarmfunkanlagen auf Frequenzen unter 12 MHz“ (V0082) oder der „Fernmeldetechnischen Vorschrift für Alarmfunkanlagen auf Frequenzen unter 12 MHz“ (FTV 582) erteilt wurde.

H Digitale europäische schnurlose Telekommunikationseinrichtungen

Funkanlagen, die einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Vorschrift für Digitale Europäische Schnurlose Telekommunikationseinrichtungen (DECT), die nicht mit dem öffentlichen Fernmeldenetz in Verbindung stehen“ (FTV 501) erteilt wurde.

I Drahtlose lokale Netzwerke (RLAN)

(1) Funkanlagen,

1. die einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Vorschrift für drahtlose lokale Netzwerke (RLAN) im Frequenzbereich 2,4000 GHz bis 2,4835 GHz“ (FTV 502) erteilt wurde, oder die in einem anderen Staat zugelassen wurden,

dessen Fernmeldebehörde ein Mitglied der Europäischen Konferenz der Post- und Fernmeldeverwaltung (CEPT) ist, und

2. an denen eine Kennzeichnung gemäß Abs. 2 angebracht ist.

(2) Die Kennzeichnung der Funkanlage besteht in der Zeichenfolge „CEPT RLAN y“, wobei an der Stelle des „y“ das internationale Kfz-Kennzeichen jenes Staates steht, in dem die Funkanlage zugelassen wurde.

(3) Ist die Funkanlage als Einschubkarte (plug-in radio device) ausgeführt, darf sie nur in den vom Hersteller als dafür geeignet erklärten Basiseinrichtungen (host equipment) betrieben werden.

(4) Hat die Funkanlage einen Anschluß für eine Antenne, darf sie nur mit einer Antenne betrieben werden, die vom Hersteller der Funkanlage als geeignet erklärt wurde.

J Transportable Satellitenfunkanlagen für Reportagezwecke (SNG-Funkanlagen)

Funkanlagen,

- 1.1 die einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Vorschrift für transportable Satellitenfunkanlagen für Reportagezwecke (SNG-Funkanlagen)“ (FTV 403) erteilt wurde oder für die am 1. April 1994 eine individuelle Bewilligung zur Errichtung und zum Betrieb bestanden hat oder
- 1.2 für die eine Betriebsbewilligung der Fernmeldeverwaltung des Landes vorliegt, in dem der Inhaber der SNG-Funkanlage seinen Hauptwohnsitz hat, falls der Inhaber der SNG-Funkanlage keinen Hauptwohnsitz im Inland hat, und
2. deren Sendefrequenzbereich (Übertragungsrichtung Erde–Satellit) auf das Frequenzband 13,75 GHz bis 14,5 GHz eingeschränkt ist.

Der Betrieb dieser SNG-Funkanlagen ist nur für die Dauer und am Ort eines aktuellen Ereignisses oder einer Veranstaltung für die über Fernmeldesatelliten stattfindende Übertragung von Fernseh- und/oder Tonsignalen gestattet und hat nach den vom Bundesministerium für Wissenschaft und Verkehr herausgegebenen „Richtlinien für den Betrieb von SNG-Funkanlagen in Österreich“ zu erfolgen.

K Inmarsat- und EUTELTRACS-Satellitenmobilkommunikationsgeräte

Fernmeldeanlagen, die

1. für den Betrieb im Rahmen der Inmarsat-Dienste A, B, C oder M oder für den Betrieb im Rahmen des EUTELTRACS-Dienstes bestimmt sind und
2. für die vom betreffenden Satellitenbetreiber eine Betriebszulassung („Authorisation“) erteilt wurde.

L Funkanlagen geringer Leistung (LPD)

(1) Funkanlagen,

1. die einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Vorschrift für Funkanlagen geringer Leistung (LPD), die in harmonisierten Frequenzbereichen betrieben werden“ (FTV 505) erteilt wurde, oder die in einem anderen Staat zugelassen wurden, dessen Fernmeldebehörde ein Mitglied der Europäischen Konferenz der Post- und Fernmeldeverwaltungen (CEPT) ist,
2. deren Sender nur mit einer integrierten Antenne ausgerüstet sind,
3. deren maximale Aussendung den Wert laut Tabelle 1 nicht überschreitet,
4. die für keine anderen als die in Tabelle 1 festgelegten Frequenzbereiche ausgerüstet sind und
5. an denen eine Kennzeichnung gemäß Abs. 2 angebracht ist.

Tabelle 1

Harmonisierte Frequenzbereiche	Feldstärke/ Strahlungsleistung
6,765 MHz–6,795 MHz	65 dB μ V/m (30 m)
13,553 MHz–13,567 MHz	65 dB μ V/m (30 m)
26,957 MHz–27,283 MHz	10m W e.r.p.
40,660 MHz–40,700 MHz	10m W e.r.p.
433,05 MHz–434,79 MHz	10m W e.r.p.
2400 MHz–2483,5 MHz	10m W e.i.r.p.
5725 MHz–5875 MHz	25m W e.i.r.p.
24,00 GHz–24,25 GHz	100 mW e.i.r.p.

(2) Die Kennzeichnung der Funkanlage besteht in der Zeichenfolge „CEPT LPD y“, wobei an der Stelle des „y“ das internationale Kfz-Kennzeichen jenes Staates steht, in dem die Funkanlage zugelassen wurde.

M CB-Funkanlagen PR 27

Funkanlagen,

- 1.1 die einer Type angehören, für die eine Typenzulassung auf Grund der „Fernmeldetechnischen Zulassungsbedingungen für Sprechfunkanlagen und -einrichtungen im 27-MHz-Bereich“ (V 0092) oder der „Fernmeldetechnischen Vorschriften für Sprechfunkanlagen und -einrichtungen im 27-MHz-Bereich“ (FTV 592) erteilt wurde und
- 1.2 an denen eine vom Bundesministerium für Wissenschaft und Verkehr aufgelegte Selbstklebeetikette im Format 8 × 12 mm angebracht ist, die auf gelbem Grund in schwarzem Druck die Bezeichnung „PR 27 A“ sowie darunter eine vom örtlich zuständigen Fernmeldebüro festgelegte fünfstellige Zahl, welche den für die Anbringung der Etikette Verantwortlichen kennzeichnet, zeigt,
oder
- 2.1 die dem „European Telecommunication Standard“ ETS 300 135 entsprechen,
- 2.2 in einem Staat zugelassen wurden, dessen Fernmeldebehörde ein Mitglied der Europäischen Konferenz der Post- und Fernmeldeverwaltungen (CEPT) ist, und
- 2.3 deren Kennzeichnung in der Zeichenfolge „CEPT PR 27 y“, wobei an der Stelle des „y“ das internationale Kfz-Kennzeichen jenes Staates steht, in dem die Funkanlage zugelassen wurde, besteht.

Die Verwendung von Relaisstellen, bei denen Aussendung und Empfang auf verschiedenen Frequenzen erfolgen, sowie die Verwendung von Richtantennen ist nicht gestattet.

N Notfunksender

Funkanlagen

1. die am Körper getragen werden,
2. mit der Nennfrequenz 121,5 MHz,
3. mit einer max. Senderausgangsleistung von 50 mW,
4. deren Trägerfrequenz amplitudenmoduliert (Modulationstastzyklus mindestens 33%) ist, mit einem Modulationsgrad von mindestens 0,85,
5. deren Aussendung aus einem charakteristischen NF-Signal besteht; das durch Amplitudenummodulation der Trägerfrequenzen, stetig fallend über einen Frequenzbereich von mindestens 700 Hz, im Frequenzbereich zwischen 1 600 und 300 Hz erzielt wird, wobei die Durchlaufgeschwindigkeit zwischen zwei und vier Durchläufen pro Sekunde liegen muß, und
6. die nur im Notfall an Bord von Luftfahrzeugen oder von Schiffen in Betrieb genommen werden.

Anlage 4

A Im Ausland zugelassene Funkanlagen

(1) Funkanlagen, die

1. in einem Staat zugelassen wurden, dessen Fernmeldebehörde ein Mitglied der Europäischen Konferenz der Post- und Fernmeldeverwaltungen (CEPT) ist, und
2. an denen eine Kennzeichnung gemäß Abs. 2 angebracht ist.

(2) Die Kennzeichnung der Funkanlage besteht in der nachstehenden, der jeweiligen Gerätetypen zugeordneten Zeichenfolge, wobei an der Stelle des „y“ das internationale Kfz-Kennzeichen jenes Staates steht, in dem die Funkanlage zugelassen wurde:

Kennzeichnung	Gerätetyp
ERC PMR y	Privater Mobilfunk

B Satellitenfunkanlagen

Satellitenfunkanlagen, die entweder nur für Senden oder für Senden und Empfangen von Funksignalen über Satelliten oder sonstige raumgestützte Systeme verwendet werden können und die der jeweils zutreffenden Fernmeldetechnischen Vorschrift (FTV 401 oder FTV 402) entsprechen, jedoch keine sondergefertigten Satellitenfunkanlagen, die als Teil des öffentlichen Telekommunikationsnetzes verwendet werden sollen.

Anlage 5

A Funkanlagen zur Fernsteuerung von Fahrzeugmodellen

B Funkempfangsanlagen

Der Betrieb ist lediglich für den Empfang von Rundfunk- oder Fernsehrundfunksendungen gestattet.

C CB-Funkanlagen

Sprechfunkanlagen kleiner Leistung im 27-MHz-Bereich, die in einem der folgenden Staaten zugelassen wurden und eine der nachstehenden Kennzeichnungen aufweisen:

Bundesrepublik Deutschland: PR 27 D-FM

Großbritannien: PR 27 GB

Niederlande: MARC 40: 2

PTT MARC

Die Verwendung von Richtantennen und Relaisstellen ist nicht gestattet.

NEUERSCHEINUNG – SUBSKRIPTIONSANGEBOT FÜR BGBl-ABONNENTEN

(Bis 31. März 1997 – 40% Ermäßigung)

BUNDESGESETZBLATT FÜR DIE REPUBLIK ÖSTERREICH

Jahrgang 1996
auf CD-ROM

Auf der Bundesgesetzblatt-CD-ROM für das Jahr 1996 befinden sich

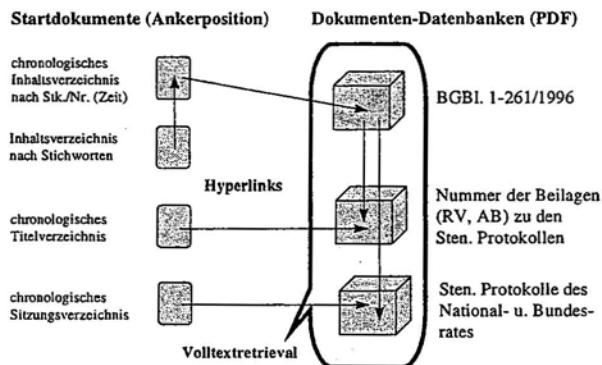
- alle Stücke des Bundesgesetzblattes aus dem Jahr 1996
- die dazugehörigen Stenographischen Protokolle des National- und Bundesrates
- die Beilagen der Serie I (Regierungsvorlagen; Ausschußberichte) des Parlamentsjahres

Die Dokumentensammlung wurde direkt aus dem Prozeß der Druckvorbereitung abgeleitet. Durch die Speicherung in einem Industriestandard kann eine absolut identische Darstellung am Bildschirm als auch für selektive Ausdrucke auf lokalen (PS-)Druckern inklusive aller Tabellen, Grafiken usw. erwartet werden.

Mit den Erläuterungen
der Ministerien und den
Protokollen aus den
Parlamentsdebatten

authentische
Darstellung
Volltext-Suche

Suchstrategien auf der BGBl-Jahrgangs-CD-ROM



Die einfachste Suche ist jene über die Nummer des Bundesgesetzblattes.

Darüber hinaus gibt es die Möglichkeit zur Volltextrecherche im gesamten Dokumentenbestand.

Das Auffinden der Dokumente und die Navigation zwischen den Dokumenten kann auch über das chronologische Titelverzeichnis (BGBl-Inhaltsverzeichnis Teil I) und darin plazierte Hyperlinks (Sprungmarken mit Querverweisen) oder die Stichwortliste (BGBl-Inhaltsverzeichnis Teil II) erfolgen.

Blättern, Zoomen, die (grafische) Datenübernahme in Ihre Anwendung oder der Ausdruck einer Textpassage ist Ihnen per Mausklick möglich.

Als Betriebssystem wird MS-Windows 3.1/3.11, MS-Windows 95 und Macintosh unterstützt.

BESTELLSCHEIN

An die Österreichische Staatsdruckerei AG – Vertrieb 1037 Wien, Rennweg 12a Tel.: (01) 797 89 / 294 Fax: (01) 797 89 / 589 e-mail: oesd-legis@tbxa.telecom.at	Ich bestelle Exemplar(e) der CD-ROM „ Bundesgesetzblatt Jahrgang 1996 “ zum Subskriptionspreis (gültig bis 31.3.1997) von öS 1.920,- exkl. MWSt. und Porto
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2

B Z T



Prüfbericht (Test Report)

Testreport no.: 523-13g/00203/97

I-ETS 300 220

EMERGENCY

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TELEKOMMUNIKATION**

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BZT

13-83

issue test report consist of

22 Pages Page 1 (22)

Akkreditiertes Prüflaboratorium

DAR-Registriernummer:
TTI-P-G-066/94-40 vom 02.12.96

Testreport no.: 523-13g/00203/97

I-ETS 300 220

EMERGENCY

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2.2 Test report

1 General information

1.1 Notes

The test results of this test report relate exclusively to the item tested as specified in 1.5.

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1.2 Testing laboratory

Bundesamt für Post und Telekommunikation
Postfach 10 04 43, 66004 Saarbrücken
Talstraße 34-42 , 66119 Saarbrücken
Deutschland
Telefone: + 49 681 598 - 0
Telefax : + 49 681 598 - 1600
E-mail : poststelle@bapt.de
Internet : http://www.bapt.de

Accredited testing laboratory

DAR-registration number : TTI-P-G-066/94-40 vom 02.12.96

1.3 Details of applicant

Name : BREITLING S.A.
Street : P.O. Box 1132
City : CH-2540 Grenchen
Country : Swiss
Telephone : +41 32 654 54 54
Telefax : +41 32 654 54 08
Contact : Mr. J. P. Girardin ; Mr. O. Desjeux
Telephone: +41 32 654 54 41

1.4 Application details

Date of receipt of application : 28.10.97
Date of receipt of test item : 16.12.97
Date of test : 16.12.97

1.5 Test item

Type of equipment : Multifunction watch equipped with a miniature transmitter to locate people in distress
Type designation : BREITLING EMERGENCY E56121
Manufacturer : applicant
Street :
City :
Country :
Serial number : 4207

Additional informations:

Frequency	: 121,500 MHz / 70K0A3X	Channel separation: >25 kHz
Number of channels	: 1	
Antenna	: Wire antenna 43cm / counterpoise 58cm	
Power supply	: 6V DC Lithium	
Type of equipment	: Category II , Class III b	
Unmodulated carrier	: not possible	

1.6 Test standards

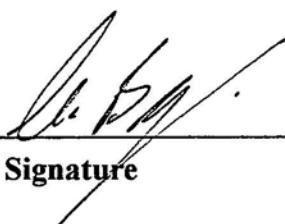
I-ETS 300 220 (Issue : October 1993)

2 Technical test**2.1 Summary of test results**

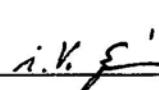
No deviations from the technical specification(s) were ascertained in the course of the tests performed.

Tester :

16.12.97 523-13g Berg
Date Section Name

Signature**Technical responsibility for area of testing :**

16.12.97 523-6 Weyrich
Date Section Name

Signature

2.2 Testreport

TEST REPORT

I-ETS 300 220

Testreport no: 523-13g/00203/97

TEST REPORT REFERENCE

LIST OF MEASUREMENTS

The list of measurements called for in I-ETS 300 220 is given below.

SUBCLAUSE	PARAMETER TO BE MEASURED	PAGE
	Transmitter parameters	
7.1	Frequency error	7
7.3	Effective radiated power - Maximum	8
7.6	Range of modulation bandwidth - Wideband only	9
7.7.3	Spurious emissions radiated- Transmitter operating	10
8.1	Spurious radiations - Radiated	11
	Test equipment listing	12
	Photographs of the equipment	14

Equipment under test : BREITLING EMERGENCY**Ambient temperature : 23°C****Relative humidity : 38%****TRANSMITTER FREQUENCY ERROR****SUBCLAUSE 7.1**

Power level at which the measurement has been performed: 35,48 mW

measurement not applicable : Frequency seperation >25 kHz

TEST CONDITIONS		FREQUENCY ERROR (kHz)		
		CH 1		
T_{nom} (23)°C	V_{nom} (6,0)V	+1,65		
T_{min} (-10)°C	V_{min} (5,1)V	+1,28		
	V_{max} (6,0)V	1,50		
T_{max} (+55)°C	V_{min} (5,1)V	+0,45		
	V_{max} (6,0)V	+0,65		
Maximum freq. error (kHz)		+1,65		
Measurement uncertainty			$\pm 1 \times 10^{-7}$	

portable station**LIMIT****SUBCLAUSE 7.1.3**

Frequency separation (kHz)	Frequency error limit (kHz)				
	<47 MHz	47 to 137 MHz	> 137 to 300 MHz	> 300 to 500 MHz	> 500 to 1000 MHz
10/12,5	± 0,60	± 1,00	± 1,00(b) ± 1,50(m) ± 2,00(p)	± 1,00(b) ± 1,50(m) ± 2,50(p)	Not applicable
20/25	± 0,60	± 1,35	± 2,00	± 2,00(b m) ± 2,50(p)	± 2,50(b m) ± 3,00(p)

b = Fixed station; m = mobile station; p = portable station

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

01 , 02 , 05

Equipment under test : BREITLING EMERGENCY**Ambient temperature : 23°C****Relative humidity : 38%****EFFECTIVE RADIATED POWER****SUBCLAUSE 7.3.1****Rated output power level (maximum) : 35 mW****Polarisation of the measurements for the larger power level .: vertical**

TEST CONDITIONS		TRANSMITTER POWER (mW)		
		CH 1		
T _{nom} (23)°C	V _{nom} (6,0)V	35,48		
Maximum deviation from output power under extreme test conditions (dBc)		2,2		
Measurement uncertainty		±3dB		

LIMIT**SUBCLAUSE 7.3.3****For normal test conditions**

Class	Frequency range MHz	Power level radiated mW
I	25 to 1000	10
II	300 to 1000	25
III	25 to 1000	100
IV	300 to 1000	500

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

Equipment under test : BREITLING EMERGENCY

Ambient temperature : 23°C

Relative humidity : 38%

**RANGE OF MODULATION BANDWIDTH FOR WIDEBAND EQUIPMENT (>25 kHz)
SUBCLAUSE 7.6**

Test conditions		Limit	
		CH 1	
$T_{\text{nom}}(23)^\circ\text{C}$	$V_{\text{nom}}(6,0)\text{V}$	FL	121,48060
		FH	121,51835
$T_{\text{min}}(-10)^\circ\text{C}$	$V_{\text{min}}(5,1)\text{V}$	FL	121,46752
		FH	121,53320
	$V_{\text{max}}(6,0)\text{V}$	FL	121,46872
		FH	121,53336
$T_{\text{max}}(+55)^\circ\text{C}$	$V_{\text{min}}(5,1)\text{V}$	FL	121,47795
		FH	121,5230
	$V_{\text{max}}(6,0)\text{V}$	FL	121,47920
		FH	121,51855
Measurement uncertainty		$\pm 1 \times 10^{-7}$	

Where FL Lowest frequency at the appropriate spurious emission level
 FH Highest frequency at the appropriate spurious emission level

Band edge limits:	FLM = Lowest FL (measured)	121,46752 MHz
and	FHM = Highest FH (measured)	121,53336 MHz

Spurious Emission Limits (Transmitter Operating) SUBCLAUSE 7.7.5 TABLE 10

47 MHz to 74 MHz 87,5 to 118 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies ≤ 1000 MHz	Frequencies > 1000 MHz
4,0 nW	250 nW	1,00 μ W

Equipment under test : BREITLING EMERGENCY

Ambient temperature : 23°C

Relative humidity : 38%

TRANSMITTER SPURIOUS EMISSIONS RADIATED

SUBCLAUSE 7.7.3.1 &

Power level at which the measurement has been performed : 35,48 mW

7.7.4.1

Transmitter operating

Modulated/Unmodulated*

*(Delete whichever is inappropriate)

SPURIOUS EMISSIONS LEVEL (nW)								
CH 1								
f (MHz)	Band-width (kHz)	Level (nW)	f (MHz)	Band-width (kHz)	Level (nW)	f (MHz)	Band-width (kHz)	Level (nW)
364,50	100	6,3						
607,51	100	0,2						
1093,5	1000	0,1						
1458,0	1000	0,3						
1944,0	1000	0,4						
2065,5	1000	0,8						
2673,0	1000	6,1						
2916,0	1000	1,1						
Measurement uncertainty			$\pm 3\text{dB}$					

Bandwidth (kHz); this refers to the bandwidth of the measurement receiver

Limits

SUBCLAUSE 7.7.5 TABLE 10

47 MHz to 74 MHz 87,5 to 118 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies ≤ 1000 MHz	Frequencies > 1000 MHz
4,0 nW	250 nW	1,00 μW

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : BREITLING EMERGENCY RECEIVER**Ambient temperature : 23°C****Relative humidity : 38 %****RECEIVER SPURIOUS RADIATION****SUBCLAUSE 8.1****Radiated**

SPURIOUS EMISSIONS LEVEL (nW)								
CH 1			CH 2			CH 3		
f (MHz)	Band- width (kHz)	Level (nW)	f (MHz)	Band- width (kHz)	Level (nW)	f (MHz)	Band- width (kHz)	Level (nW)
121,04	100	0,04						
Measurement uncertainty			±3 dB					

Bandwidth (kHz); this refers to the bandwidth of the measurement receiver**LIMIT****SUBCLAUSE 8.1.5**

Frequencies below ≤ 1000 MHz	Frequencies > 1000 MHz
2,0 nW	20,0 nW

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
01	Spectrum Analyzer	8566 A	Hewlett-Packard	1925A00257
02	Analyzer Display	8566 A	Hewlett-Packard	1925A00860
03	Oscilloscope	7633	Tektronix	230054
04	Radio Analyzer	CMTA 54	Rohde & Schwarz	894 043/010
05	System Power Supply	6038 A	Hewlett-Packard	2848A07027
06	Signal Generator	8111 A	Hewlett-Packard	2215G00867
07	Signal Generator	8662 A	Hewlett-Packard	2224A01012
08	Funktionsgenerator	AFGU	Rohde & Schwarz	862 480/032
09	Regeltrenntrafo	MPL	Erfi	91350
10	Netznachbildung	NNLA 8120	Schwarzbeck	8120331
11	Relais-Matrix	PSU	Rohde & Schwarz	893 285/020
12	Power-Meter	436 A	Hewlett-Packard	2101A12378
13	Power-Sensor	8484 A	Hewlett-Packard	2237A10156
14	Power-Sensor	8482 A	Hewlett-Packard	2237A00616
15	Modulationsmeter	9008	Racal-Dana	2647
16	Frequenzzähler	5340 A	Hewlett-Packard	1532A03899
17	Absorber Schirmkabine	---	MWB	87400/002
18	Spectrum Analyzer	85660 B	Hewlett-Packard	2747A05306
19	Analyzer Display	85662 A	Hewlett-Packard	2816A16541
20	Quasi Peak Adapter	85650 A	Hewlett-Packard	2811A01131
21	RF-Presselector	85685 A	Hewlett-Packard	2833A00768
22	Biconical Antenne	3104	Emco	3758
23	Log. Per. Antenne	3146	Emco	2130
24	Double Ridge Horn	3115	Emco	3088
25	EMI-Testreceiver	ESAI	Rohde & Schwarz	863 180/013
26	EMI-Analyzer-Display	ESAI-D	Rohde & Schwarz	862 771/008
27	Biconical Antenne	HK 116	Rohde & Schwarz	888 945/013
28	Log. Per. Antenne	HL 223	Rohde & Schwarz	825 584/002
29	Relais-Switch-Unit	RSU	Rohde & Schwarz	375 339/002
30	Highpass	HM985955	FSY Microwave	001
31	Amplifier	P42-GA29	Tron-Tech	B 23602
32	Absorber Schirmkabine		Frankonia	
33	Steuerrechner	PSM 7	Rohde & Schwarz	834 621/004
34	EMI Test Reciever	ESMI	Rohde & Schwarz	827 063/010
35	EMI Test Receiver	Display	Rohde & Schwarz	829 808/010

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

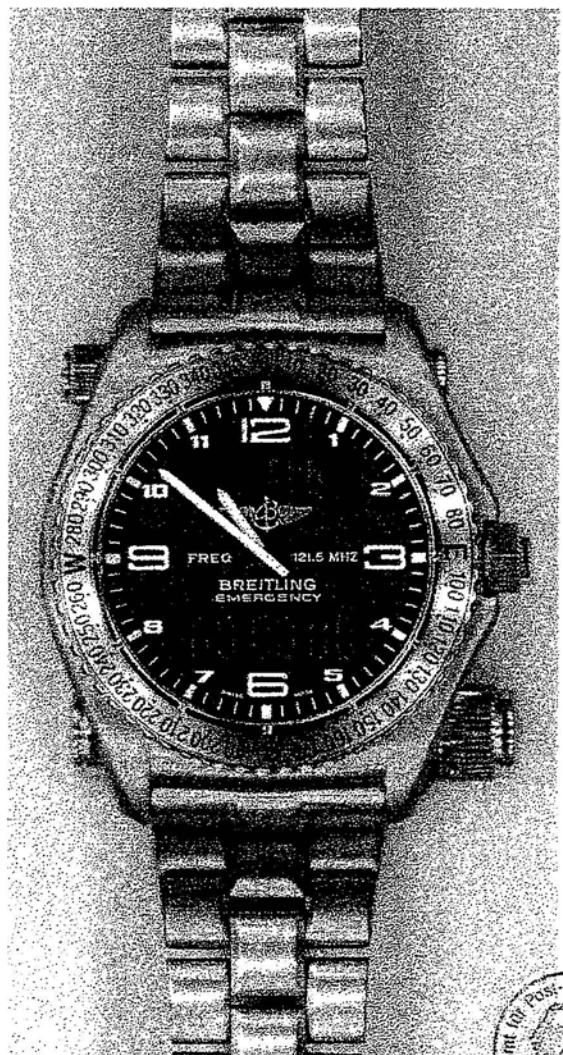
To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
36	Controler	HD 100	Deisel	100/322/93
37	Relais Matrix	PSN	Rohde & Schwarz	829 065/003
38	Control Unit	GB 016 A2	Rohde & Schwarz	344 122/008
39	Relais Switch Unit	RSU	Rohde & Schwarz	316 790/001
40	Power Supply	6032A	Hewlett Packard	2846A04063
41	Spektrum Monitor	EZM	Rohde & Schwarz	883 720/006
42	Meßempfänger	ESH 3	Rohde & Schwarz	890 174/002
43	Meßempfänger	ESVP	Rohde & Schwarz	891 752/005
44	Biconi Ant. 20-300MHz	HK 116	Rohde & Schwarz	833 162/011
45	Logger Ant. 0.3-1 GHz	HL 223	Rohde & Schwarz	832 914/010
46	Amplifier 0.1-4 GHz	AFS4	Miteq Inc.	206461
47	Logger Ant. 1-18 GHz	HL 024 A2	Rohde & Schwarz	342 662/002
48	Polarisationsnetzwerk	HL 024 Z1	Rohde & Schwarz	341 570/002
49	Double Ridge G Horn Antenne 1-26.5 GHz	3115	EMCO	9107-3696
50	Microw. Sys. Amplifier 0.5- 26.5 GHz	8317A	Hewlett Packard	3123A00105
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PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

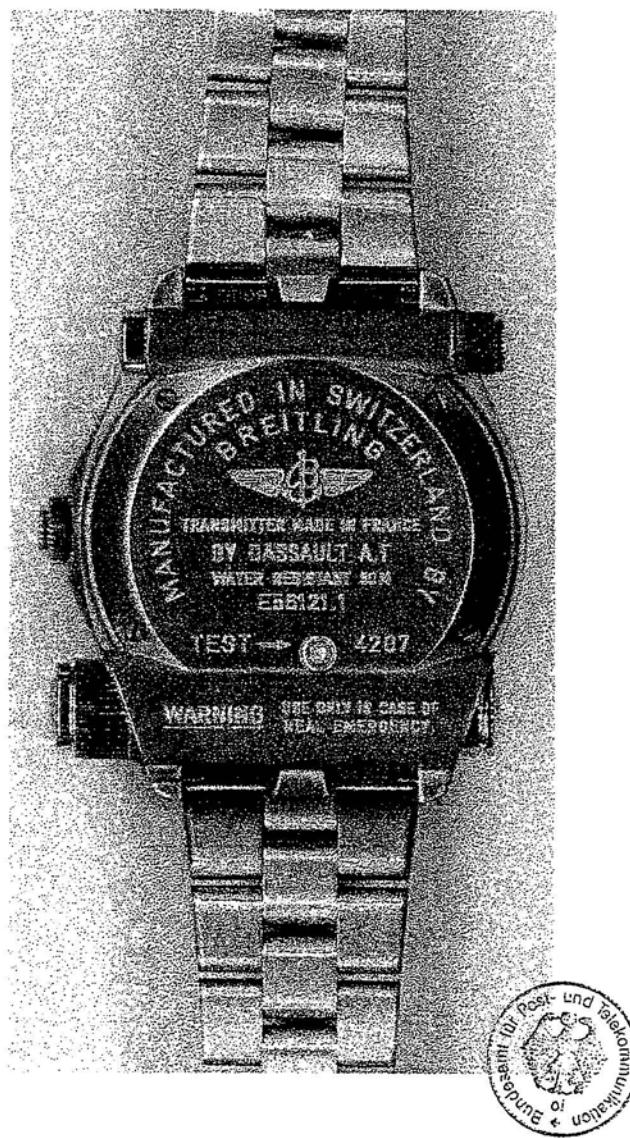
Photograph no.: 1



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

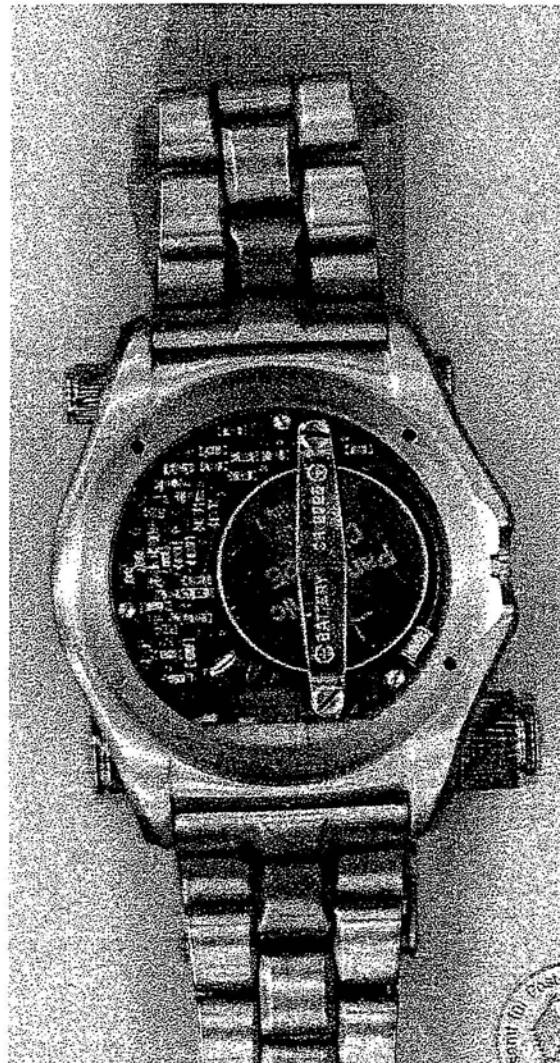
Photograph no.: 2



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

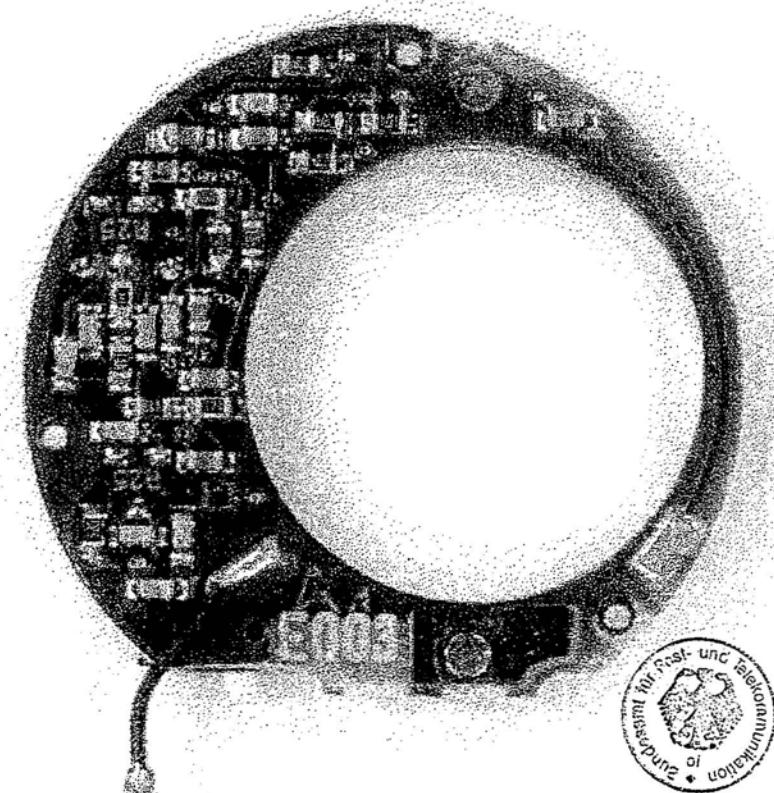
Photograph no.: 3



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

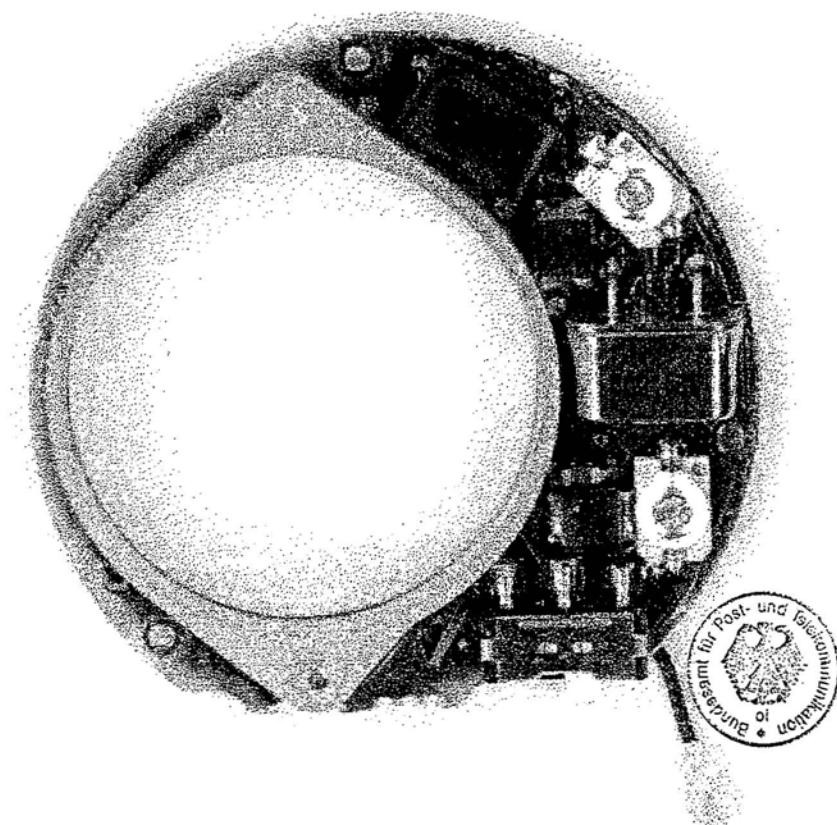
Photograph no.: 4



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

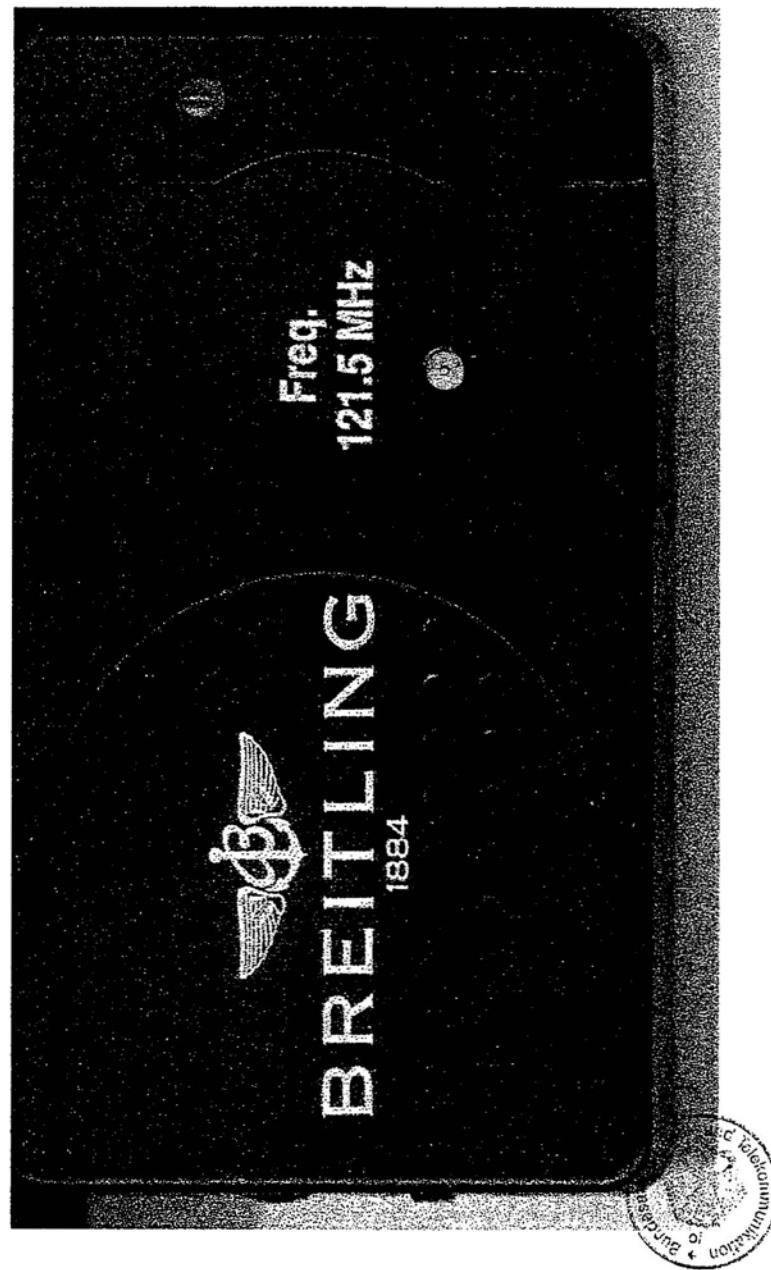
Photograph no.: 5



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

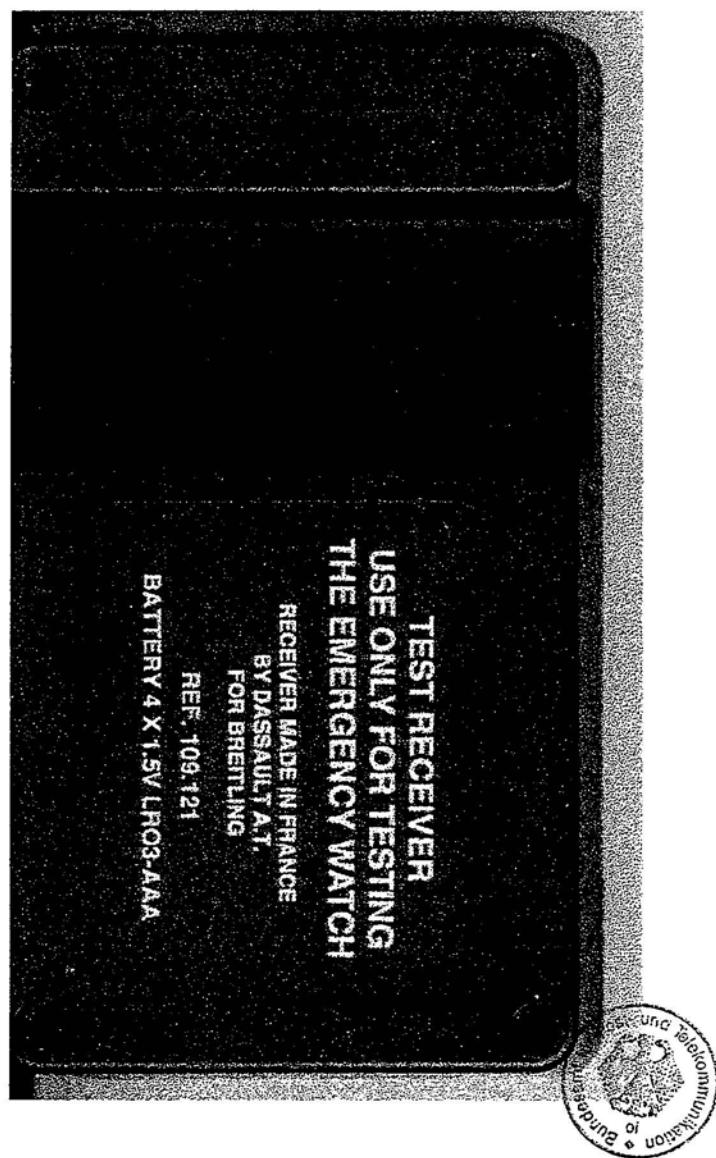
Photograph no.: 6



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

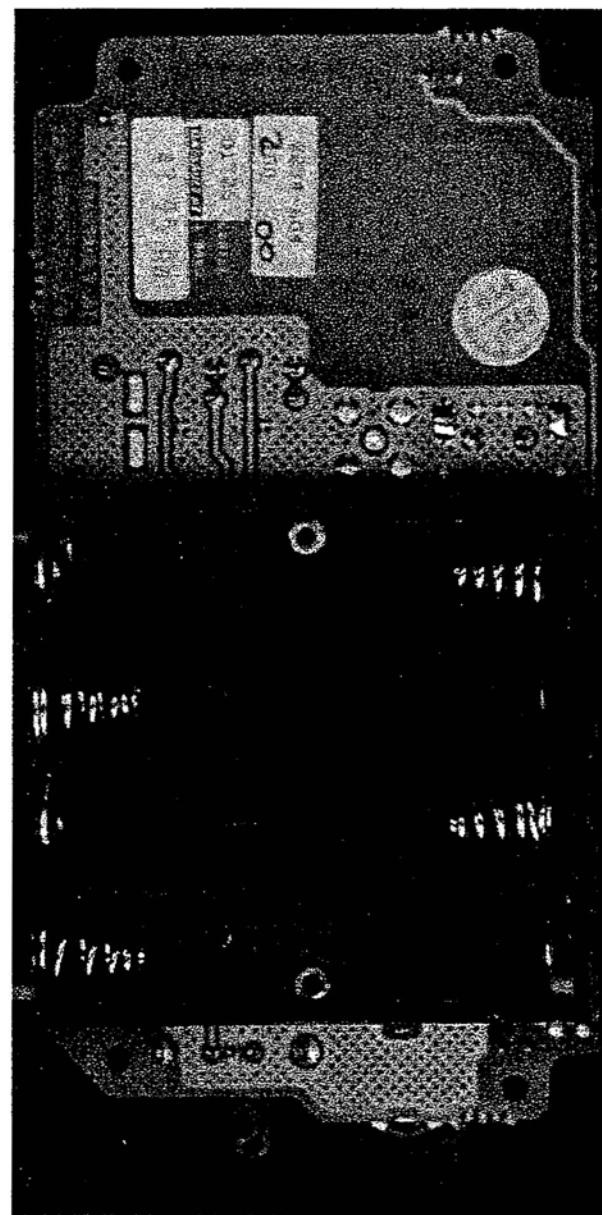
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PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

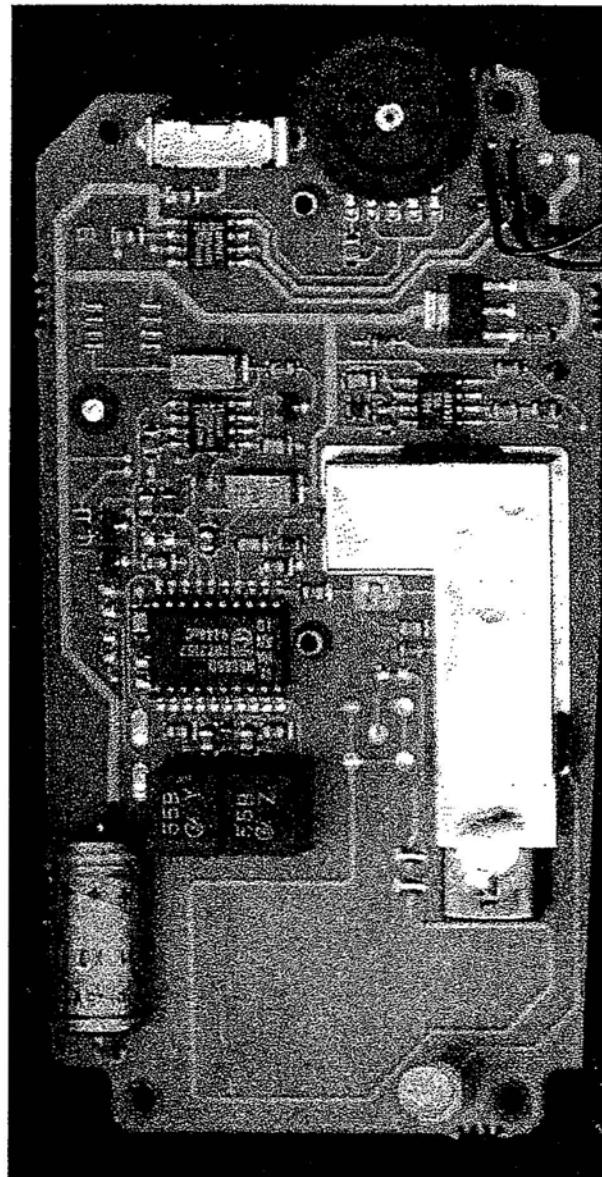
Photograph no.: 8



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY

Photograph no.: 9



3

2.2 Prüfbericht
(Test report)

Prüfbericht

ETS 300 683

Ausgabe : Juni 1997

Prüfbericht Nr. :

1388/00160/97

Gerätebezeichnung:

EMERGENCY

Umgebungstemperatur:

21°C

relative Luftfeuchte:

45 - 65%

2.2.1 Prüfergebnisse

**2.2.1.1 Störaussendung
(Emission)**

2.2.1.1.1 Gerätestrahlung elektrisch 30 MHz - 1 GHz (EN 55022) (Radiated emission)	
siehe Auszug aus Prüfbericht Nr.: 523-13g/00203/97	erfüllt
"Grenzwert der EN 55022 B" nach Punkt 8.2 der ETS 300 683 Meßschriebe / -protokolle siehe Punkt 4 Anlage 1 Es wurden die in Punkt 3.4 aufgeführten Meßgeräte eingesetzt.	

**2.2.1.1.2 Gleichspannungs- Netz Ein- und Ausgänge (EN 55022)
(DC Power in/out)**

	nicht anwendbar

**2.2.1.1.3 Wechselspannungs- Netzeingänge (EN 55022)
(AC Power in)**

	nicht anwendbar

**2.2.1.2 Störfestigkeit
(Immunity)****2.2.1.2.1 Elektromagnetisches Feld (80-1000 MHz) (ENV 50140)
(RF electromagnetic field)**

EMERGENCY	erfüllt
"Performance criteria CT bzw. CR" nach Punkt 9.2 der ETS 300 683 Meßschriebe / -protokolle siehe Punkt 4 Anlage 2 Es wurden die in Punkt 3.1 aufgeführten Meßgeräte eingesetzt.	

**2.2.1.2.2 Entladung statischer Elektrizität (EN 1000-4-2, EN 61000-4-2)
(Electrostatic discharge)**

EMERGENCY	erfüllt
"Performance criteria TT bzw. TR" nach Punkt 9.3 der ETS 300 683 Meßschriebe / -protokolle siehe Punkt 4 Anlage 3 Es wurden die in Punkt 3.3 aufgeführten Meßgeräte eingesetzt.	

**2.2.1.2.3 Schnelle Transiente asymmetrisch „Burst“ (EN 1000-4-4, EN 61000-4-4)
(Fast transients common mode)**

	nicht anwendbar

**2.2.1.2.4 HF asymmetrisch 0,15-80 MHz (mit Koppelzange) (ENV 50141)
(RF common mode (Clamp injection))**

	nicht anwendbar

2.2.1.2.5 Transiente u. Stoßspannungen, in Fahrzeugumgebung (ISO 7637 Teil 1 und 2) (Transients and surges, Vehicles) direkte Verbindung zur Fahrzeubatterie ja nein	
kein Fahrzeugbetrieb	nicht anwendbar

2.2.1.2.6 Spannungseinbrüche und -unterbrechungen (EN 1000-4-11, EN 61000-4-11) (Voltage dips and interruptions)	
	nicht anwendbar

2.2.1.2.7 Stoßspannungen, asymmetrisch und symmetrisch (EN 1000-4-5, EN 61000-4-5) (Surges common and differential mode)	
	nicht anwendbar

3 Meßgeräte und Hilfsmittel für die Durchführung der Messung**3.1 Meßgeräte der Halle B.1/B.0**

No	Meßgerät oder Hilfsmittel	Hersteller	Typ	Serien Nr.
1	Geschirmte Kabine mit Absorber	Frankonia		
2	Steuerrechner	Rohde & Schwarz	PSM 7	834 621/004
3	EMI Meßempfänger	Rohde & Schwarz	ESMI	827 063/010
4	EMI Meßempfänger	Rohde & Schwarz	Display	829 808/010
5	Steuergerät	Deisel	HD 100	100/322/93
6	Schaltfeld	Rohde & Schwarz	PSN	829 065/003
7	Control Unit	Rohde & Schwarz	GB 016 A2	344 122/008
8	Relais Matrix	Rohde & Schwarz	RSU	316 790/001
9	Stromversorgung	Hewlett Packard	6032A	2846A04063
10	Spektrum Monitor	Rohde & Schwarz	EZM	883 720/006
11	Meßempfänger 9 kHz - 30 MHz	Rohde & Schwarz	ESH 3	890 174/002
12	Meßempfänger 20 MHz - 1300 MHz	Rohde & Schwarz	ESVP	891 752/005
13	Biconical Antenne 20-300 MHz	Rohde & Schwarz	HK 116	833 162/011
14	Log. Periodic Antenne 300-1000 MHz	Rohde & Schwarz	HL 223	832 914/010
15	Verstärker 0,1-4 GHz	Miteq Inc.	AFS4-00100400-15-10P-6	206461
16	gek. Log Periodic Antenne 1-18 GHz	Rohde & Schwarz	HL 024 A2	342 662/002
17	Polarisationsnetzwerk	Rohde & Schwarz	HL 024 Z1	341 570/002
18	Double Ridge G. Horn Ant. 1-26,5 GHz	EMCO	3115	9107-3696
19	Verstärker 0,5-26,5 GHz	Hewlett Packard	83017A	3123A00240
20	Stromversorgung für HP 83017A	Hewlett Packard	87421A	3116A00625
21	Dreifachrahmen Antenne (2m)	Rohde & Schwarz	HM 020	832 211/003
22	Feld Sensor	EMCO	7121	9210-1336
23	Feld Sensor	EMCO	7122	9211-1152
24	EH-Feld-Generator Antenne	Amplifier Research	AT 5000	13184
25	Bi-Konische Antenne	EMCO	3109	9304-2712
26	Logarithmische-Periodische Antenne	EMCO	3147	9311-1123
27	Schnittstellen Einheit	EMCO	7110	9303-1225
28	Signal Generator	Rohde & Schwarz	SMG.52	832 307/050
29	Pegelmesser	Rohde & Schwarz	URV5	833 658/005
30	Relais Matrix	Rohde & Schwarz	RSU	316 790/001
31	Richtungskoppler	Rohde & Schwarz	DCU	316 790/005
32	Verstärker 10 kHz - 220 MHz	Amplifier Research	250L	13163
33	Verstärker 25 MHz - 1000 MHz	Amplifier Research	100W1000M7	12930
34	EMS-Subsystemrack 1 - 4 GHz	Rohde & Schwarz	Systemrack	375 350/001
35	Signal Generator	Rohde & Schwarz	SMHU.52	860 292/019
36	Pegelmesser	Rohde & Schwarz	URV5	833 658/004
37	Relay Matrix	Rohde & Schwarz	RSU	316 790/001
38	Verstärker 1-2 GHz	Varian	VZS 6941	7398
39	Verstärker 2-4 GHz	Varian	VZL 6951	7400

3.3 Meßgeräte ESD-Center

No	Meßgerät oder Hilfsmittel	Hersteller	Type	Serien Nr.
52	RS 232 Lichtleiter-Übertrager	Schaffner	-	-
53	Beeinflussungs Test System	Schaffner	NSG 600	416
54	Spannungs-Variator	Schaffner	NSG 642	118
55	Netzausfall- und -Variations-Simulator	Schaffner	NSG 603A	314
56	Impuls-Generator	Schaffner	NSG 623	161
57	Burst Generator	Schaffner	NSG 625	3006
58	ESD-Simulator	Schaffner	NSG 435	000 308
59	Einkoppelzange (Clamp)	FCC	F-120-4	23
60				
61				
62	Steuerrechner	Rohde & Schwarz	PSA 12	862 628/012
63	NF-Generator	Rohde & Schwarz	AFGU	829 935/003
64	RMS Voltmeter	Rohde & Schwarz	URE 2	832 063/002
65	Kondensator	Solar Electronics	6512-106 R	none
66	Audio Trenntransformator	Solar Electronics	6220-1A	none
67	Leistungsverstärker	Bryston	7B	
68	Rahmenantenne	Rohde & Schwarz	HFH2-Z2	881 058/42
69	Burst Generator	EM Test	EFT 200	000 009
70	Mikro Puls Generator	EM Test	MPG 200	000 005
71	Load Dump Generator	EM Test	LD 200	000 007
72	Voltage Drop Generator	EM Test	VDS 200	000 009
73	Koppelstrecke	EM Test	ACC	keine
74	Abschlußwiderstand für ACC	EM Test	keine	keine
75				

3.4 Meßgeräte Halle C.1/C.0

No	Meßgerät oder Hilfsmittel	Hersteller	Type	Serien Nr.
76	Quasi-Peak-Adapter	Hewlett Packard	85650A	2811A01131
77	Spectr.-Analyzer	Hewlett Packard	8566 B	2747A05306
78	Preselector	Hewlett Packard	85685 A	2833A00768
79	Relais-Matrix	Hewlett Packard	3488 A	2719A15012
80	Netzgerät	Hewlett Packard	6032 A	2818A03450
81	Mikrowellen Verstärker	Hewlett Packard	83017A	3123A00104
82	Stromversorgung für Verstärker	Hewlett Packard	87421A	3116A00292
83	Biconical Ant.	EMCO	3104	3758
84	Logperiodic Ant.	EMCO	3146	2130
85	Double Ridged Ant.	EMCO	3115	8812-3088
86				

4 Anhänge

4.1 Meßschriebe / -protokolle

4.2 Bilddokumentation

Bundesamt für Post und Telekommunikation**BZT**

Test report no.: 523-13g/00203/97

Issue Date: 16.12.1997

Page 10 (22)

Equipment under test : BREITLING EMERGENCY

Ambient temperature : 23°C

Relative humidity : 38%

TRANSMITTER SPURIOUS EMISSIONS RADIATED**SUBCLAUSE 7.7.3.1 &**

Power level at which the measurement has been performed : 35,48 mW

7.7.4.1

Transmitter operating

Modulated/Unmodulated*

*(Delete whichever is inappropriate)

SPURIOUS EMISSIONS LEVEL (nW)								
CH 1								
f (MHz)	Band- width (kHz)	Level (nW)	f (MHz)	Band- width (kHz)	Level (nW)	f (MHz)	Band- width (kHz)	Level (nW)
364,50	100	6,3						
607,51	100	0,2						
1093,5	1000	0,1						
1458,0	1000	0,3						
1944,0	1000	0,4						
2065,5	1000	0,8						
2673,0	1000	6,1						
2916,0	1000	1,1						
Measurement uncertainty			± 3dB					

Bandwidth (kHz); this refers to the bandwidth of the measurement receiver

Limits

SUBCLAUSE 7.7.5 TABLE 10

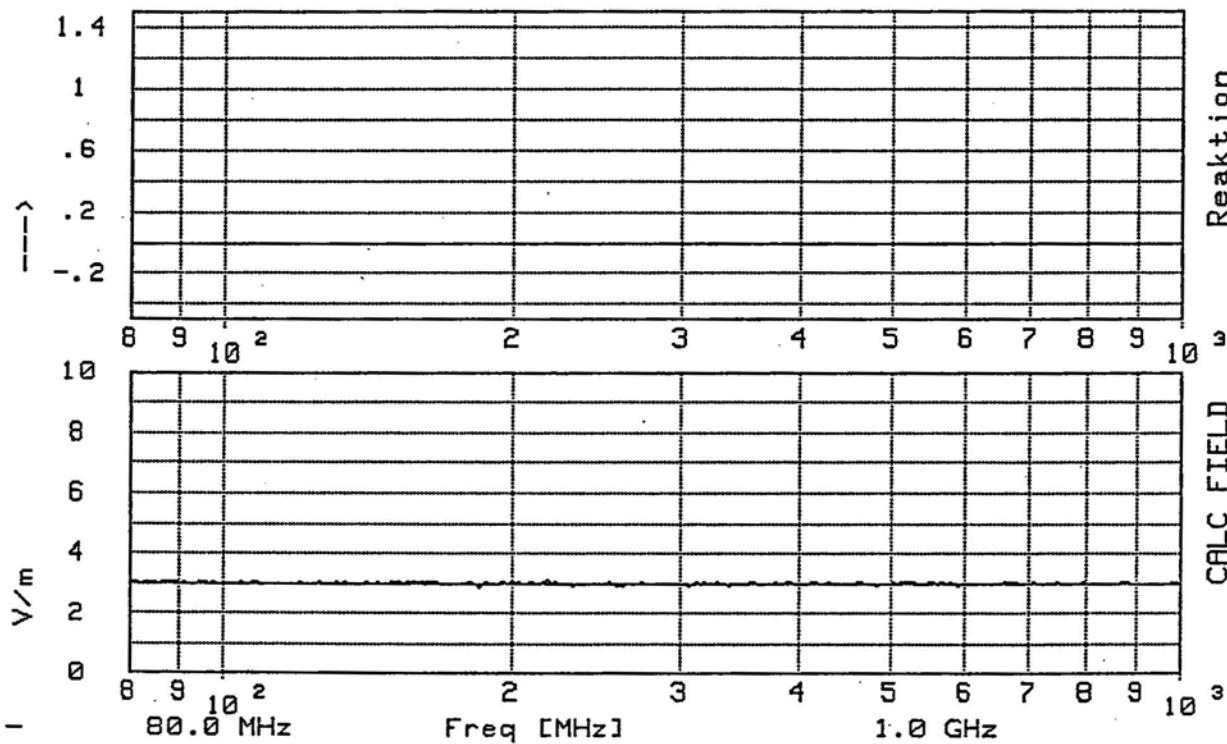
47 MHz to 74 MHz 87,5 to 118 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies ≤ 1000 MHz	Frequencies > 1000 MHz
4,0 nW	250 nW	1,00 µW

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Bestrahlungs-Prüfprotokoll: 63534-1

Kunde: Breitling Vorgangs-Nr.: 63534
Hersteller: S.O.
Prüfgegenstand: Armbanduhr mit Notsender
Typbezeichnung: Emergency
Betriebszustand: Dauersenden auf 121,5 MHz mit Not-Modulation
Prüfung: ETS 300 683 06/97 Prüfverfahren: ENV 50140
Stromversorgung: 2 x 3V Lithiumbatterien
Auswertegerät: optisch am Analyzer und Scope
Antennenpos.: Vertikal
Diagramm Titel: Immunität 80-1000 MHz



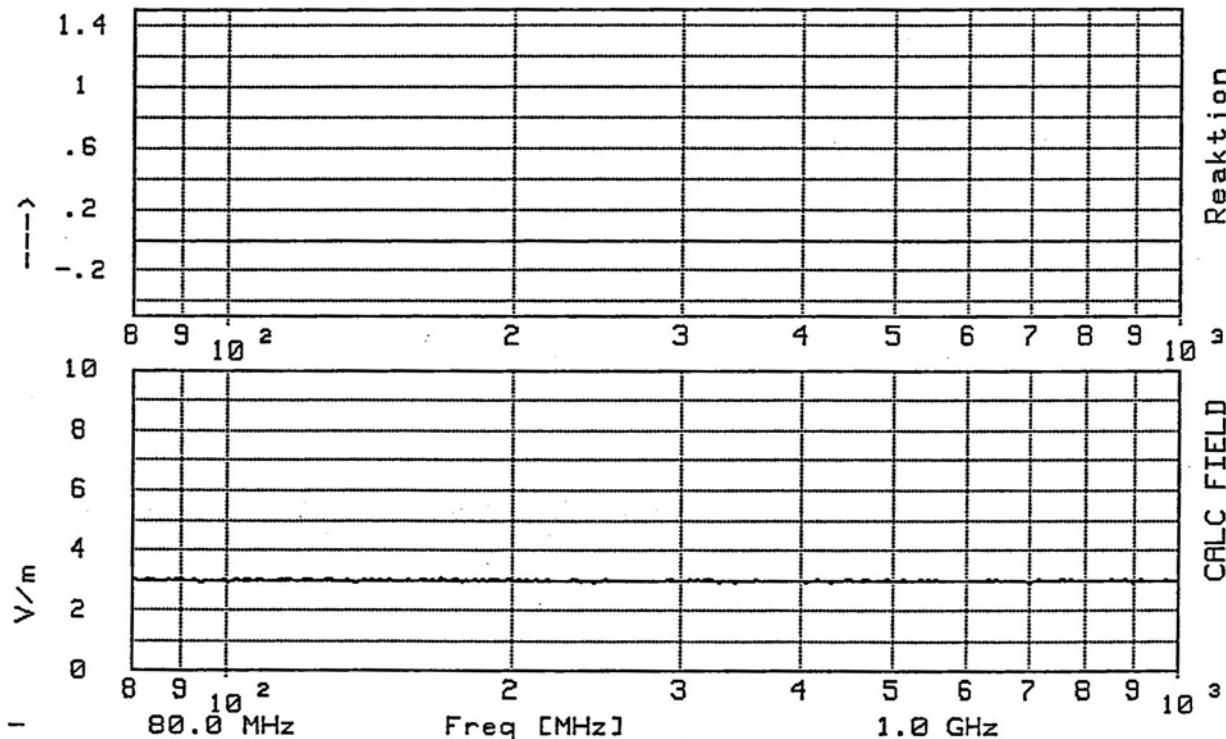
Kommentar: Keine Abweichung festgestellt.

Test Aufbau: BAPT Saarbrücken, Halle B

EMS-K1 Datum: 16.12.97 15:08 Prüfer: Schnedler, 523-131

Bestrahlungs-Prüfprotokoll: 63534-2

Kunde: Breitling Vorgangs-Nr.: 63534
Hersteller: s.o.
Prüfgegenstand: Armbanduhr mit Notsender
Typbezeichnung: Emergency
Betriebszustand: Dauersenden auf 121,5 MHz mit Not-Modulation
Prüfung: ETS 300 683 06/97 Prüfverfahren: ENV 50140
Stromversorgung: 2 x 3V Lithiumbatterien
Auswertegerät: optisch am Analyzer und Scope
Antennenpos.: Horizontal
Diagramm Titel: Immunität 80-1000 MHz



Kommentar: Keine Abweichung festgestellt.

Test Aufbau: BAPT Saarbrücken, Halle B

EMS-K1 Datum: 16.12.97 15:12 Prüfer: Schnedler, 523-131

R&S EMC TEST SET

16.12.97 15:32:10

GLOBAL FIELD PARAMETERS:

	1	2	3	4	5
Start Freq/MHz	80.000	0.0000	0.0000	0.0000	0.0000
Stop Freq/MHz	1000.0000	0.0000	0.0000	0.0000	0.0000
Steps/MHz/%	1.0000	0.0000	0.0000	0.0000	0.0000
LIN/LOG/DEC	LOG	LIN	LIN	LIN	LIN
SCAN MODE	REF. FIELD				
E [V/m] Peak	3.0	0.0	0.0	0.0	0.0
Tolerance [dB]	0.20	0.00	0.00	0.00	0.00
Dwell Time [s]	2.00	0.00	0.00	0.00	0.00
Power Control	FORWARD	FORWARD	FORWARD	FORWARD	FORWARD
Mod. Freq.(kHz)	0.400	0.000	0.000	0.000	0.000
Mod. Depth (%)	88.0	0.0	0.0	0.0	0.0
Deviat./rad/kHz	0.000	0.000	0.000	0.000	0.000
Modulation	AM/int	OFF	OFF	OFF	OFF
Waveform/ext	Sine	Sine	Sine	Sine	Sine
Field Probe	NONE	—	—	—	—
Field Contour	NONE	—	—	—	—
System Config.	ANTENNA	—	—	—	—
Increasing Mode	TOP ONLY				
Number of Steps	1	0	0	0	0
Incr.Level [dB]	6.0	0.0	0.0	0.0	0.0

Entladung statischer Elektrizität (ESD)
(electrostatic discharge)

Prüflabor: BAPT, 1388

Prüfobjekt: EMERGENCY

Hersteller: Breitling S.A.

Seriennr.: 2872

Vorg.Nr. : 63534

Prüfvorschrift : ETS 300 683 (06/97)

Verwendete Testgeräte: ESD Generator Schaffner NSG 435

Tests durchgeführt: M. Schnedler, BAPT 523-131

Durchgeführte Messungen/Tests:

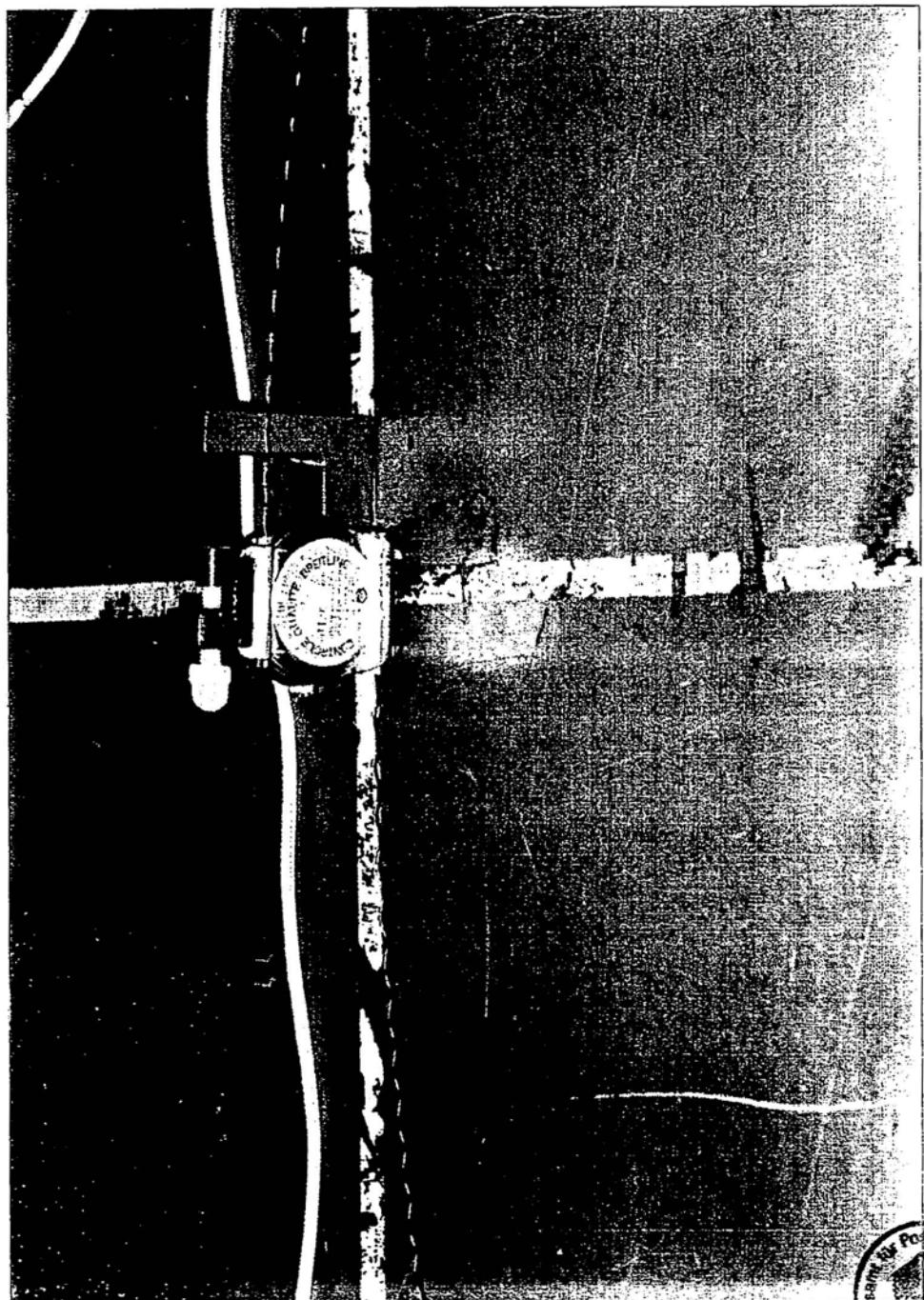
Datum: 16.12.97

1. Luftentladung bis ± 8 kV : Am Glas des Ziffernblattes.
Ergebnis: Keine Abweichung festgestellt.

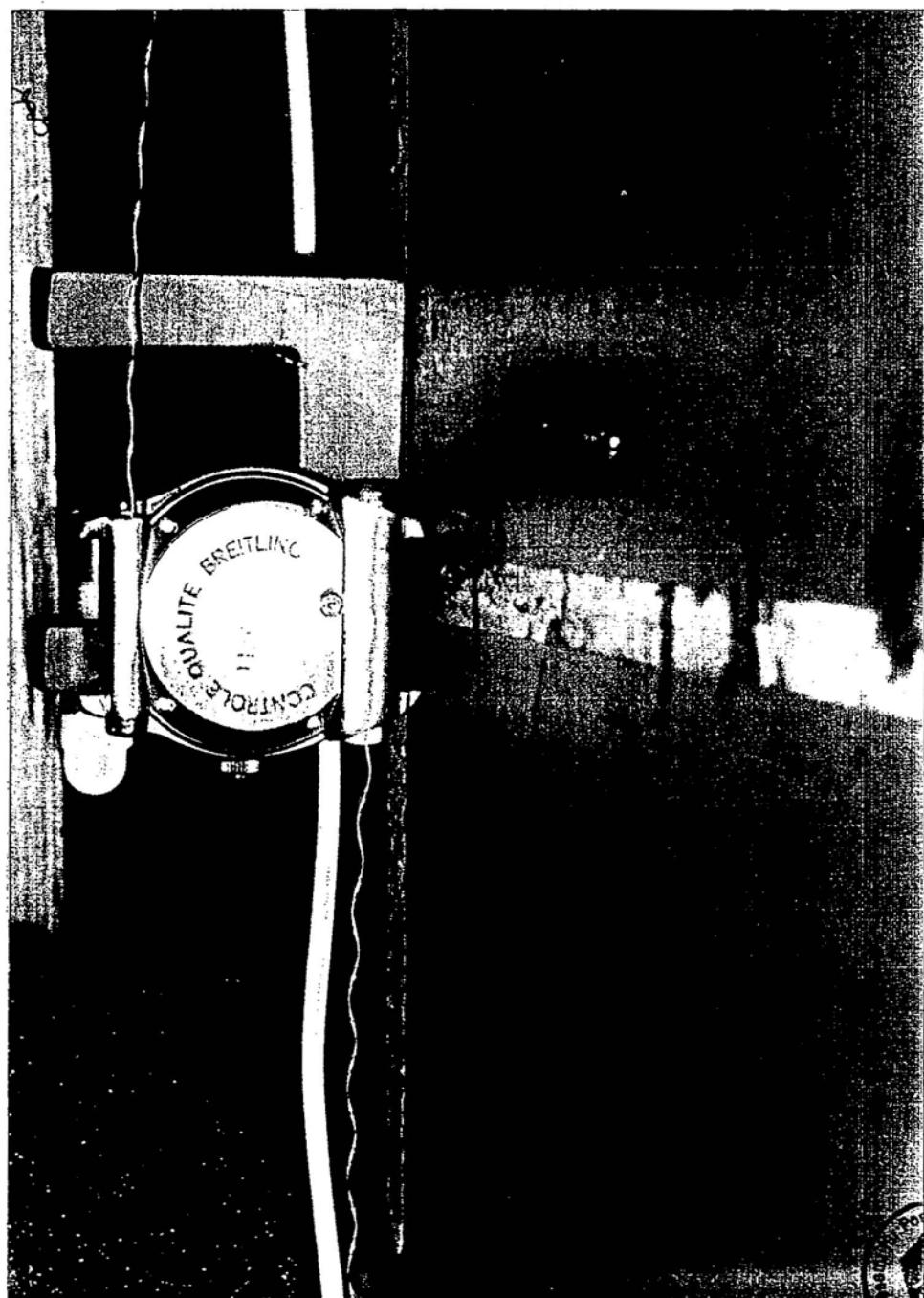
2. Kontaktentladung bis ± 4 kV: Am gesamten Gehäuse auf der Ober- und Unterseite der Uhr und an den Befestigungsschrauben des Uhrwerks.
Ergebnis: Keine Abweichung festgestellt.

Bemerkung: Bei der Beaufschlagung war der Notsender aktiv.

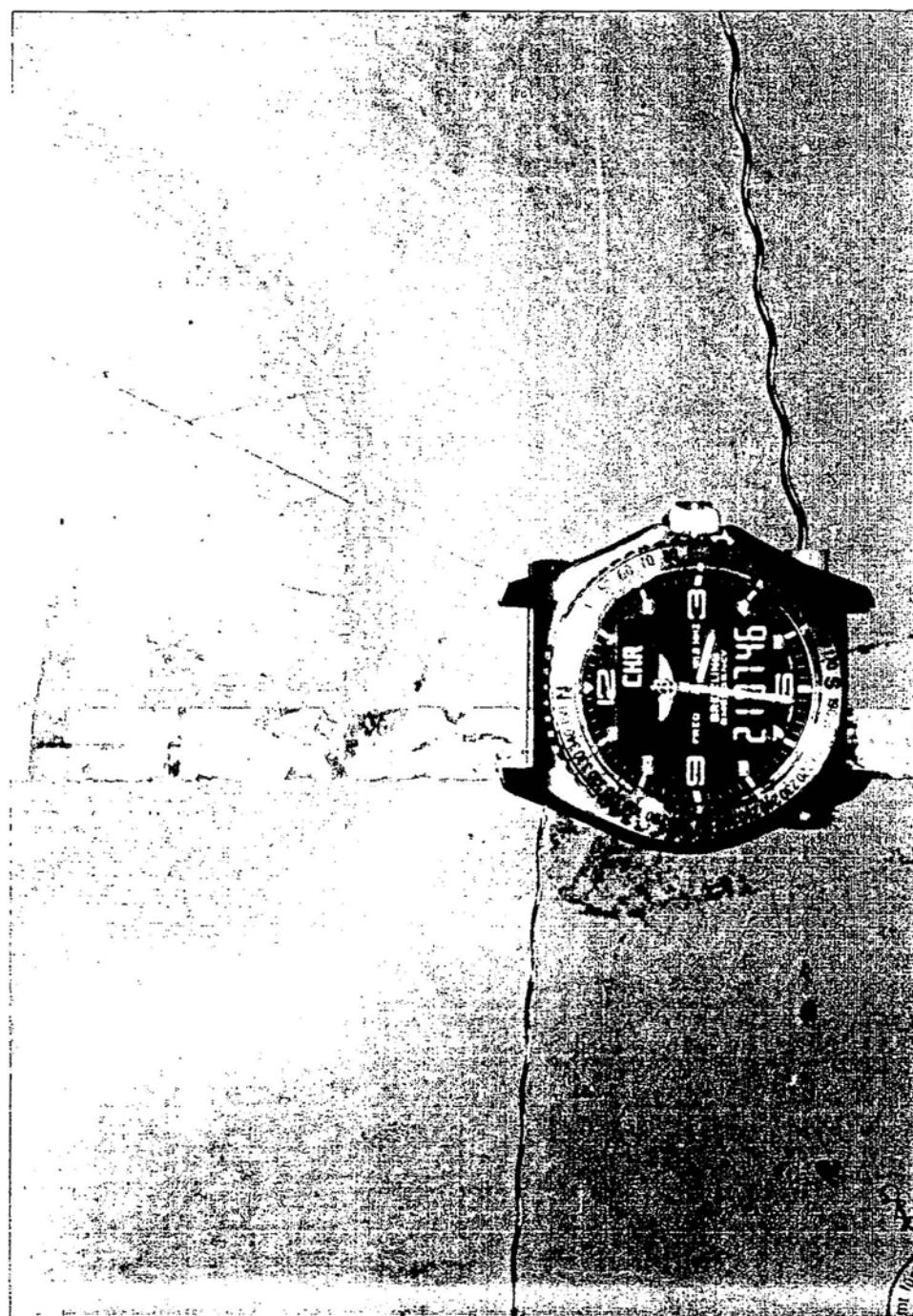
4.2 Bilddokumentation



4.2 Bilddokumentation



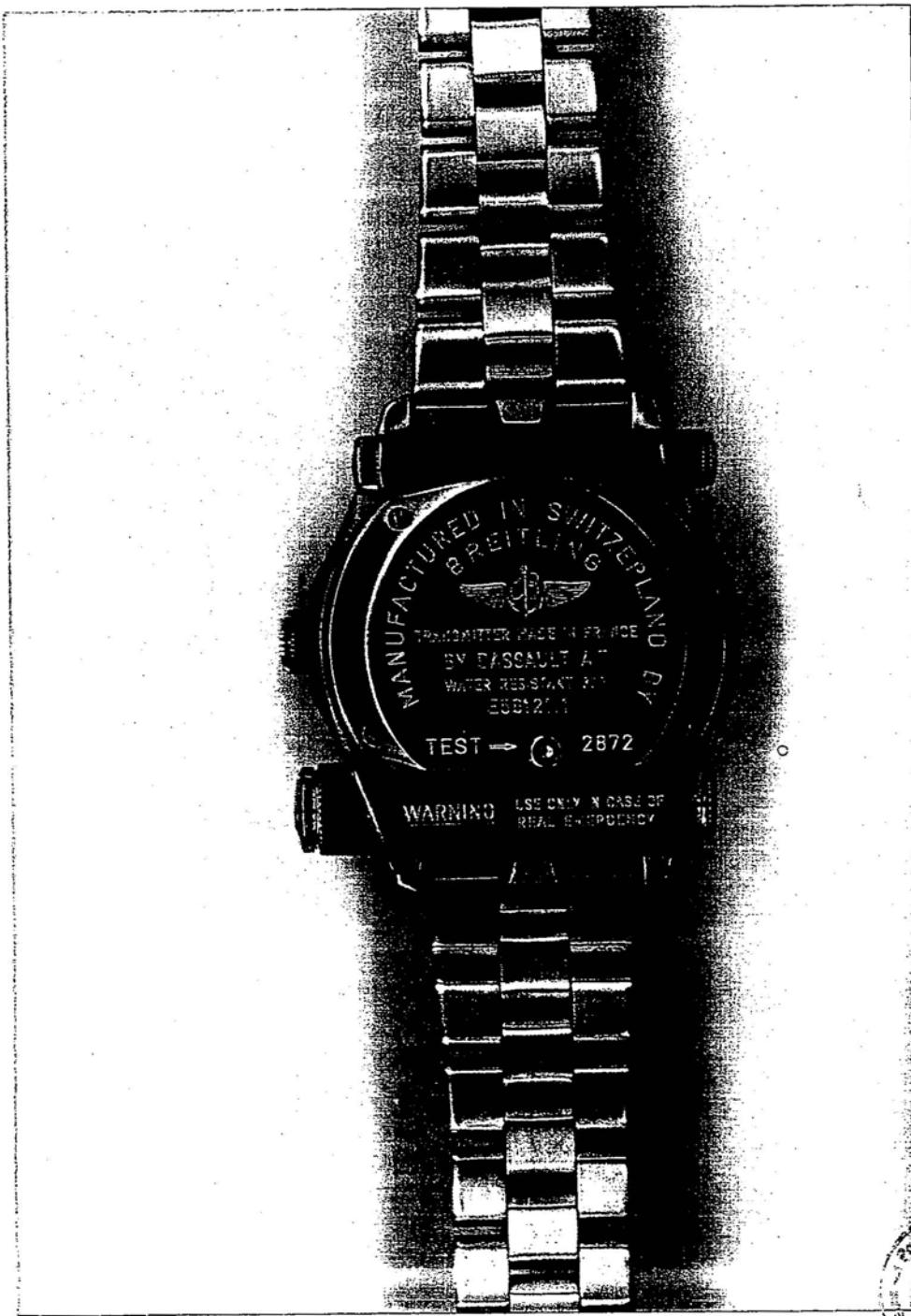
4.2 Bilddokumentation



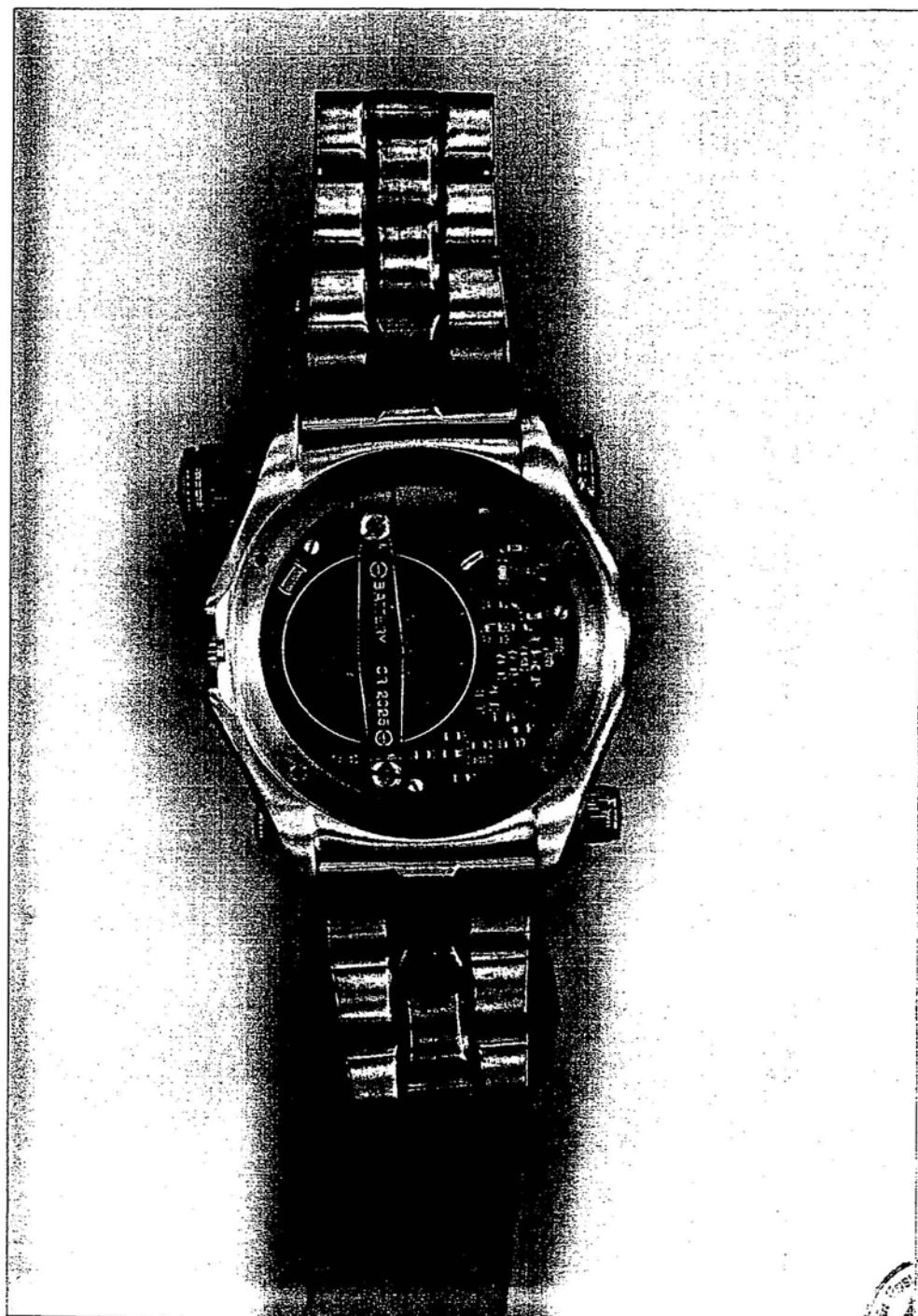
4.2 Bilddokumentation



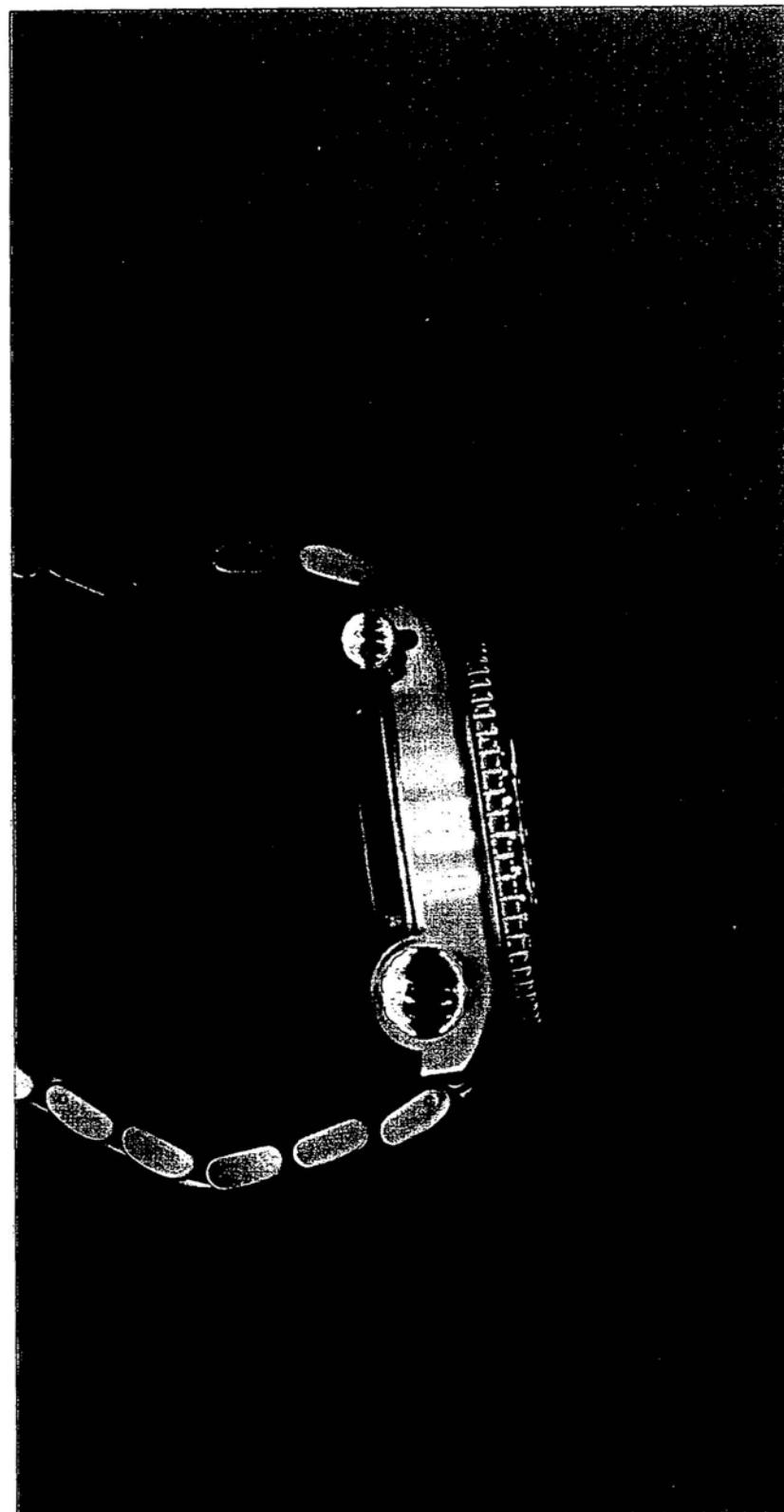
4.2 Bilddokumentation



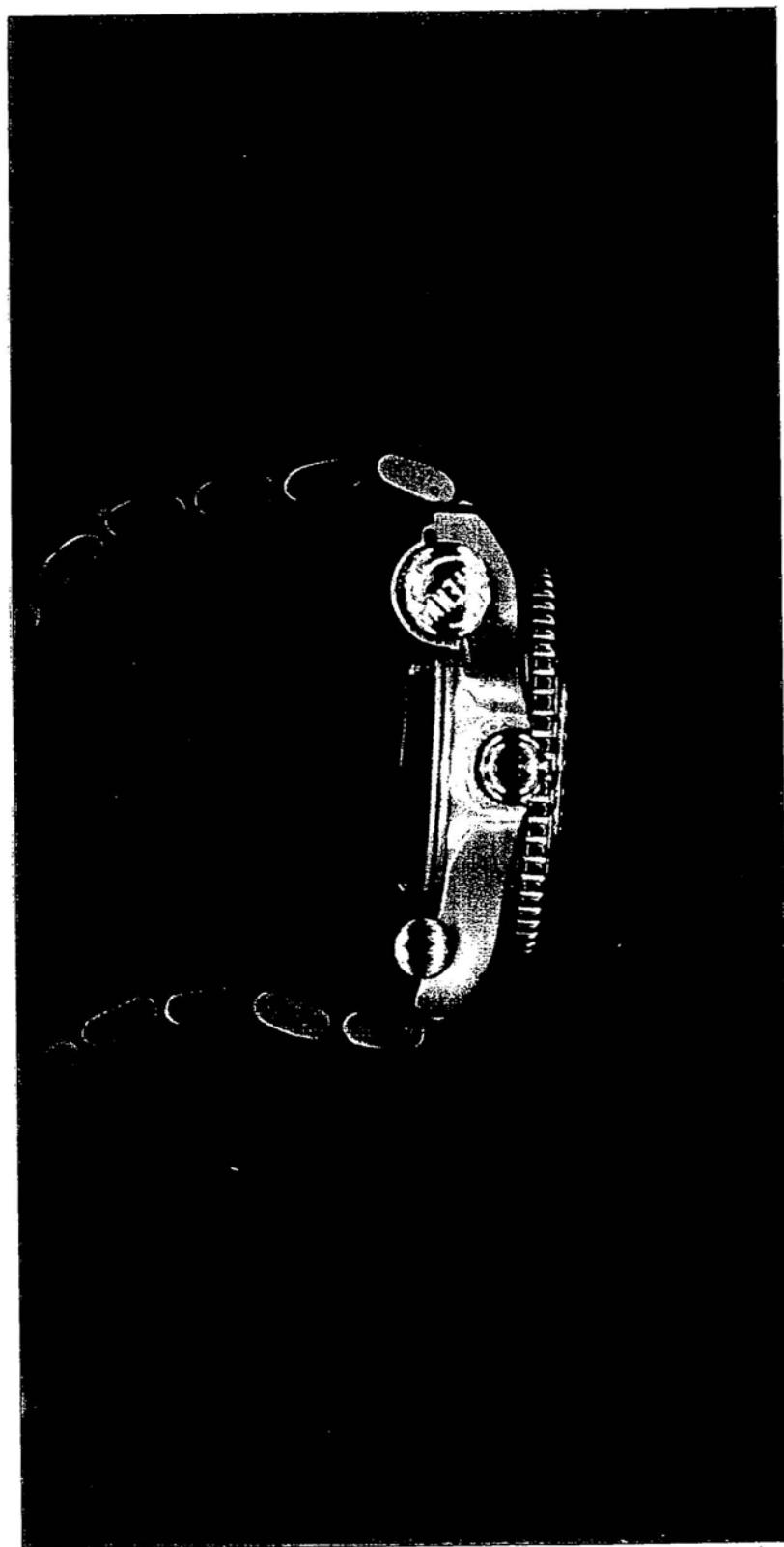
4.2 Bilddokumentation



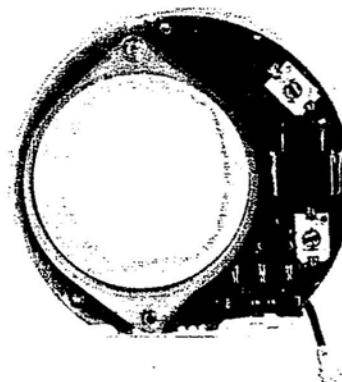
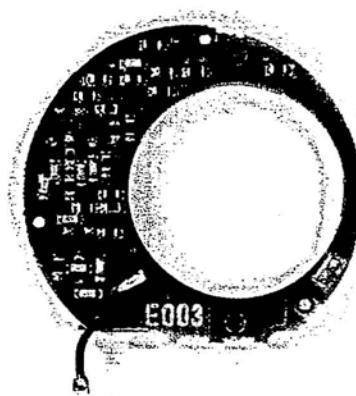
4.2 Bilddokumentation



4.2 Bilddokumentation



4.2 Bilddokumentation



4



Prüfbericht

(Test Report)

CETECOM ICT Services GmbH
Untertürkheimer Straße 6-10
D-66117 Saarbrücken



CETECOM ICT Services GmbH

Radio Satelite Communication
Untertürkheimer Straße 6-10 . D-66117 Saarbrücken Telefon: +49 (0)681 598-9100 Telefax: -9075

RSC11

issue test report consist of 18 Pages

Page 1 (18)

Akkreditiertes Prüflaboratorium

DAR-Registriernummer:
TTI-P-G 166/98-00 vom 18.09.98

Test report no.: 2_1291-A/99
FCC Rule 87.135 - 137 ; 87.139(h) ; 87.141(i)
BREITLING EMERGENCY E56121

Table of Contents

1 General information

1.1 Notes

1.2 Testing laboratory

1.3 Details of applicant

1.4 Application details

1.5 Test item

1.6 Test standards

2 Technical test

2.1 Summary of test results

2.2 Test report

1 General information

1.1 Notes

The test results of this test report relate exclusively to the item tested as specified in 1.5.

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the CETECOM ICT Services GmbH.

1.2 Testing laboratory

CETECOM ICT Services GmbH

66117 Saarbrücken

Untertürkheimer Straße 6 - 10

Deutschland

Telefone: + 49 681 598 - 9100

Telefax : + 49 681 598 - 9075

E-mail : Michael.Berg@ict.cetecom.de

Internet :

Accredited testing laboratory

DAR-registration number : TTI-P-G 166/98-00 vom 18.09.98

1.3 Details of applicant

Name : BREITLING S.A.

Street : P.O. Box 1132

City : CH-2540 Grenchen

Country : Swiss

Telephone : +41 32 654 54 54

Telefax : +41 32 654 54 08

Contact : Mr. J. P. Girardin ; Mr. O. Desjeux

Telephone : +41 32 654 54 41

1.4 Application details

Date of receipt of application : 16.04.99

Date of receipt of test item : 04.05.99

Date of test : 04.05.99

1.5 Test item

Type of equipment : Multifunction watch equipped with a miniature transmitter to locate people in distress

Type designation : BREITLING EMERGENCY E56121

Manufacturer : applicant

Street :

City :

Country :

Serial number : 4207

Additional informations:

Frequency : 121,500 MHz / 3K20A3X

Number of channels : 1

Antenna : Wire antenna 43cm / counterpoise 58cm

Power supply : 6V DC Lithium

Unmodulated carrier : not possible

2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.

Technical responsibility for area of testing :

05.05.99	RSC 8411	Berg
Date	Section	Name

Signature

Technical responsibility for area of testing :

05.05.99	RSC8414	Ames
Date	Section	Name

Signature

2.2 Testreport

TEST REPORT

Testreport no. : 2_1291-A/99

TEST REPORT REFERENCE

LIST OF MEASUREMENTS

Paragraph	PARAMETER TO BE MEASURED	PAGE
	Transmitter parameters	
§ 87.131	RF Power Output	7
§ 87.133	Frequency Stability	8
§ 87.135	Bandwidth of emissions	9
§ 87.139	Emission limitations	10
§ 87.141	Modulation requirements	11
	Test equipment listing	12
	Photographs of the equipment	14

Equipment under test : BREITLING EMERGENCY E56121

Ambient temperature : 23°C

Relative humidity : 48%

RF POWER OUTPUT**SUBCLAUSE § 87.131**

TEST CONDITIONS		POWER OUTPUT (mW)		
		121,500		
T _{nom} (23)°C	V _{nom} (6,0)V	35,48 ERP		
Maximum deviation from output power under extreme test conditions (dBc)		2,2		
Measurement uncertainty		±3dB		

LIMIT**SUBCLAUSE § 87.131**

Frequency range	RF power output
Aeronautical search and rescue	10 watts

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
05 , 12 , 14

Equipment under test : BREITLING EMERGENCY E56121

Ambient temperature : 23°C

Relative humidity : 48%

TRANSMITTER FREQUENCY STABILITY vs. TEMPERATURE AND BATTERY VOLTAGE
SUBCLAUSE § 87.133

Power level at which the measurement has been performed: 35,48 mW

TEST CONDITIONS		FREQUENCY ERROR (kHz)		
		CH 1		
T_{nom} (23)°C	V_{nom} (6,0)V	+1,65		
T_{min} (-10)°C	V_{min} (5,1)V	+1,28		
	V_{max} (6,0)V	1,50		
T_{max} (+55)°C	V_{min} (5,1)V	+0,45		
	V_{max} (6,0)V	+0,65		
Maximum freq. error (kHz)		+1,65		
Measurement uncertainty		$\pm 1 \times 10^{-7}$		

Limit

SUBCLAUSE § 87.133

Emergency locator stations $\pm 50 \times 10^{-6}$

Equipment under test : BREITLING EMERGENCY E56121

Ambient temperature : 23°C

Relative humidity : 48%

BANDWIDTH OF EMISSION**SUBCLAUSE 87.135**

TEST CONDITIONS		OCCUPIED BANDWITH (kHz)		
Frequency (MHz)		121,500		
T_{nom} (23) °C	V_{nom} (6,0) V	15,17		
Measurement uncertainty		$\pm 3\text{dB}$		

Class of emission : A3X
Emission designation : 3K20A3X**LIMIT****SUBCLAUSE 87.137**

Occupied bandwith shall not exceed 25 kHz

Equipment under test : BREITLING EMERGENCY E56121

Ambient temperature : 23°C

Relative humidity : 48%

EMISSION LIMITATIONS

SUBCLAUSE § 87.139

EMISSION LIMITATIONS					
121,500 MHz					
f (MHz)	polarization	amplitude of emission (dBm)	limit max. allowed emmision power	actual attenuation below frquency of operation (dB)	results
121,50	vertical	+15,50	40,0 dBm	-	Operating frequency
243,00	vertical	-20,40	-30 dBc	-35,90	complies
364,50	vertical	-45,70	-30 dBc	-61,20	complies
485,70	vertical	-52,00	-30 dBc	-67,50	complies
607,70	vertical	-63,20	-30 dBc	-68,70	complies
728,80	vertical	-58,20	-30 dBc	-73,70	complies
850,00	vertical	-56,30	-30 dBc	-71,80	complies
971,20	vertical	-44,20	-30 dBc	-59,70	complies
1093,5	vertical	-70,00	-30 dBc	-85,5	complies
1458,0	vertical	-65,22	-30 dBc	-80,72	complies
1944,0	vertical	-63,98	-30 dBc	79,48	complies
2065,5	vertical	-60,97	-30 dBc	76,47	complies
2673,0	vertical	-52,15	-30 dBc	-67,65	complies
2916,0	vertical	-59,59	-30 dBc	-75,09	complies
Measurement uncertainty		$\pm 3\text{dB}$			

LIMITS

SUBCLAUSE § 87.139

For ELTs :

When the frequency is moved from the assigned frequency by more then 50 percent up to and including 100 percent of the authorized bandwidth the attenuation must be at least 25 dB.

When the frequency is removed from the assigned frequency by more then .100 percent of the authorized bandwidth the attenuation must be at least 30 dB.

CETECOM ICT Services GmbH

CETECOM

Test report nr.: 2_1291-A/99

Issue Date: 05.05.1999

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Equipment under test : BREITLING EMERGENCY E56121

Ambient temperature : 23°C

Relative humidity : 48%

MODULATION REQUIREMENTS

SUBCLAUSE 87.141(i)

TEST CONDITIONS		SUPPRESS CARRIER (%)		
Frequency (MHz)		121,500		
T _{nom} (23)°C	V _{nom} (6,0)V	32,0 %		
Measurement uncertainty		±0,5dB		

Class of emission : A3X

Emission designation : 3K20A3X

LIMIT

SUBCLAUSE 87.141(i)

PARTLY SUPPRESS CARRIER : min 30 percent

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
01	Spectrum Analyzer	8566 A	Hewlett-Packard	1925A00257
02	Analyzer Display	8566 A	Hewlett-Packard	1925A00860
03	Oscilloscope	7633	Tektronix	230054
04	Radio Analyzer	CMTA 54	Rohde & Schwarz	894 043/010
05	System Power Supply	6038 A	Hewlett-Packard	2848A07027
06	Signal Generator	8111 A	Hewlett-Packard	2215G00867
07	Signal Generator	8662 A	Hewlett-Packard	2224A01012
08	Funktionsgenerator	AFGU	Rohde & Schwarz	862 480/032
09	Regeltrenntrafo	MPL	Erfi	91350
10	Netznachbildung	NNLA 8120	Schwarzbeck	8120331
11	Relais-Matrix	PSU	Rohde & Schwarz	893 285/020
12	Power-Meter	436 A	Hewlett-Packard	2101A12378
13	Power-Sensor	8484 A	Hewlett-Packard	2237A10156
14	Power-Sensor	8482 A	Hewlett-Packard	2237A00616
15	Modulationsmeter	9008	Racal-Dana	2647
16	Frequenzzähler	5340 A	Hewlett-Packard	1532A03899
17	Absorber Schirmkabine	---	MWB	87400/002
18	Spectrum Analyzer	85660 B	Hewlett-Packard	2747A05306
19	Analyzer Display	85662 A	Hewlett-Packard	2816A16541
20	Quasi Peak Adapter	85650 A	Hewlett-Packard	2811A01131
21	RF-Preselector	85685 A	Hewlett-Packard	2833A00768
22	Biconical Antenne	3104	Emco	3758
23	Log. Per. Antenne	3146	Emco	2130
24	Double Ridge Horn	3115	Emco	3088
25	EMI-Testreceiver	ESAI	Rohde & Schwarz	863 180/013
26	EMI-Analyzer-Display	ESAI-D	Rohde & Schwarz	862 771/008
27	Biconical Antenne	HK 116	Rohde & Schwarz	888 945/013
28	Log. Per. Antenne	HL 223	Rohde & Schwarz	825 584/002
29	Relais-Switch-Unit	RSU	Rohde & Schwarz	375 339/002
30	Highpass	HM985955	FSY Microwave	001
31	Amplifier	P42-GA29	Tron-Tech	B 23602
32	Absorber Schirmkabine		Frankonia	
33	Steuerrechner	PSM 7	Rohde & Schwarz	834 621/004
34	EMI Test Reciever	ESMI	Rohde & Schwarz	827 063/010
35	EMI Test Receiver	Display	Rohde & Schwarz	829 808/010

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
36	Controler	HD 100	Deisel	100/322/93
37	Relais Matrix	PSN	Rohde & Schwarz	829 065/003
38	Control Unit	GB 016 A2	Rohde & Schwarz	344 122/008
39	Relais Switch Unit	RSU	Rohde & Schwarz	316 790/001
40	Power Supply	6032A	Hewlett Packard	2846A04063
41	Spektrum Monitor	EZM	Rohde & Schwarz	883 720/006
42	Meßempfänger	ESH 3	Rohde & Schwarz	890 174/002
43	Meßempfänger	ESVP	Rohde & Schwarz	891 752/005
44	Biconi Ant. 20-300MHz	HK 116	Rohde & Schwarz	833 162/011
45	Logger Ant. 0.3-1 GHz	HL 223	Rohde & Schwarz	832 914/010
46	Amplifier 0.1-4 GHz	AFS4	Miteq Inc.	206461
47	Logger Ant. 1-18 GHz	HL 024 A2	Rohde & Schwarz	342 662/002
48	Polarisationsnetzwerk	HL 024 Z1	Rohde & Schwarz	341 570/002
49	Double Ridge G-Horn Antenne 1-26.5 GHz	3115	EMCO	9107-3696
50	Microw. Sys. Amplifier 0.5- 26.5 GHz	8317A	Hewlett Packard	3123A00105
51	Audio Analyzer	UPD	Rohde & Schwarz	1030.7500.04
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PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY E56121

Photograph no.: 1



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY E56121

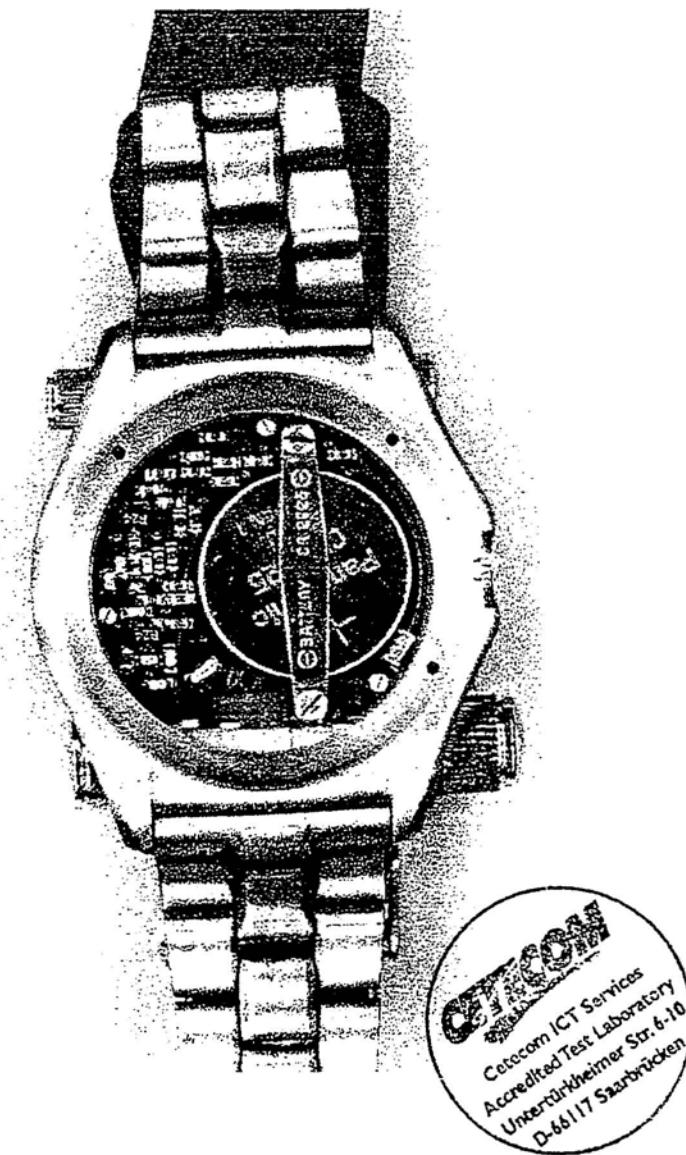
Photograph no.: 2



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY E56121

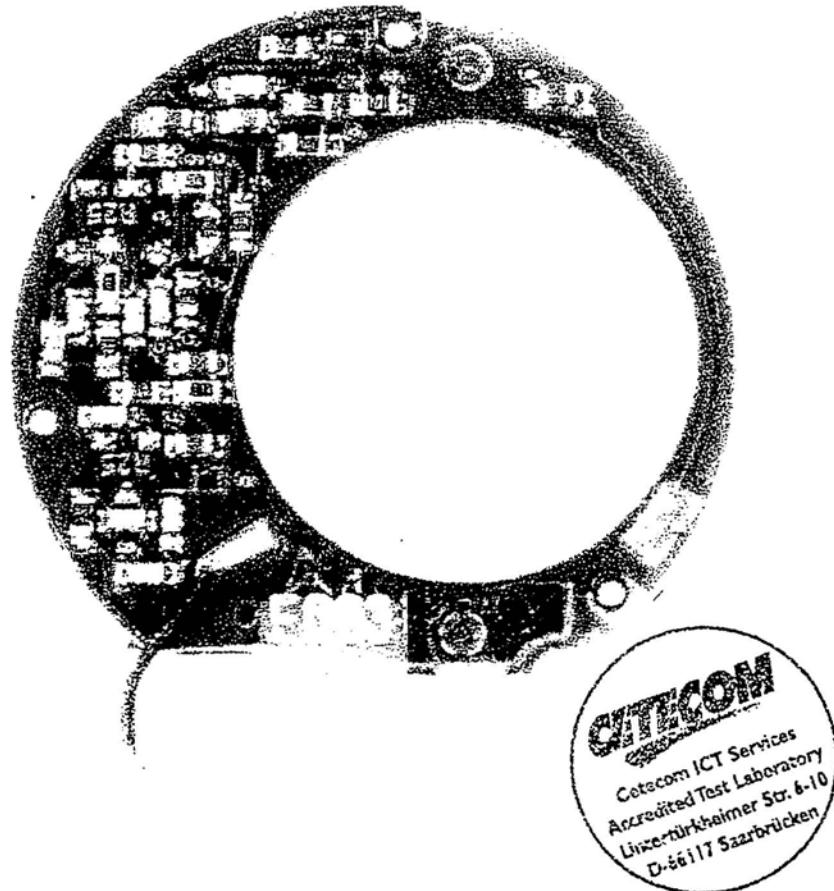
Photograph no.: 3



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY E56121

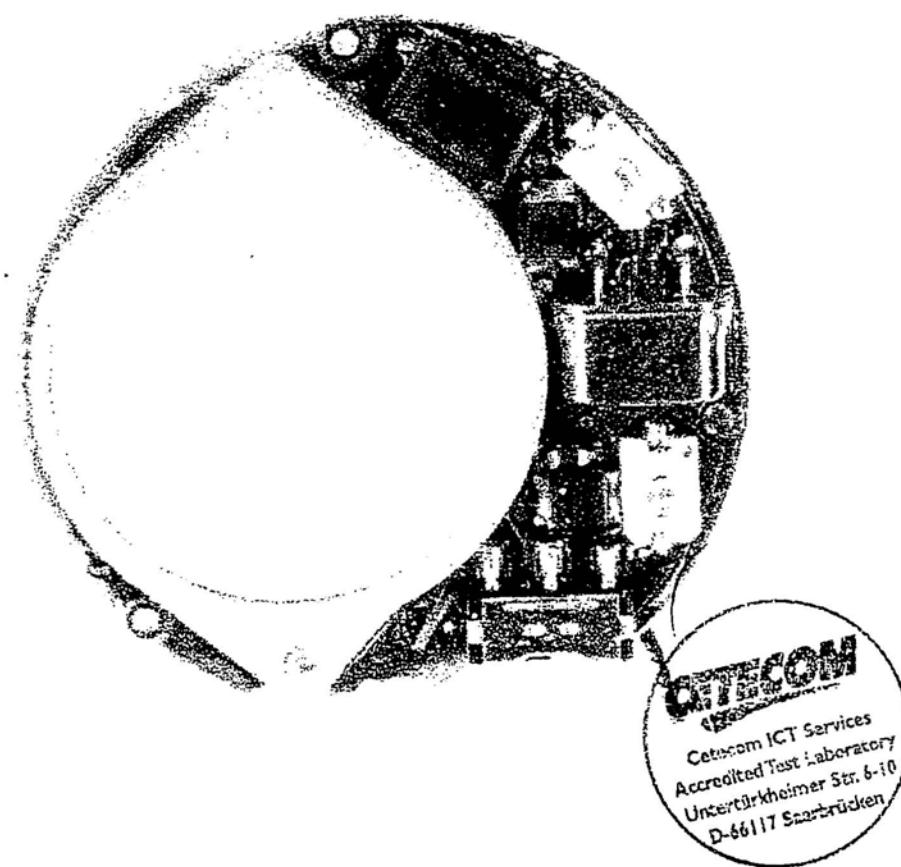
Photograph no.: 4



PHOTOGRAPHS OF THE EQUIPMENT

BREITLING EMERGENCY E56121

Photograph no.: 5



5

Posts and Telecommunications Regulatory Body

Breitling AG
for the attention of Mr. Olivier Desjeux
P.O. Box 1132

CH-2540 Grenchen

Your ref/letter of J-P Girardin, 06.01.1998	Our ref/letter of 318-3 B 3583-1/3580	Tel (06131) 18-1223 or 18-0	Fax (06131) 18-5615	Mainz 26.01.1998
--	--	--------------------------------	------------------------	---------------------

General allocation of frequencies for use by specified radio equipment:
No. 822 "Breitling Emergency"

Dear Sirs,

Under '47 Sects.1 and 5 of the Telecommunications Law (TKG) of 25th July 1996 (BGBI I S. 1120) the frequency **121.5 MHZ** has been assigned to the public for use by the radio sets marketed by yourselves bearing the model designation of "Breitling Emergency" and the federal eagle seal of approval "BZT G750822K". The attached general allocation has been published in the 1/98 edition of the official gazette of the Posts and Telecommunications Regulatory Body as Order No. Reg TP 5/1998.

Radio sets falling under this general allocation can be operated free from any charges and do not require an individual frequency allocation if they comply with the build sample which has been electrically and mechanically tested at an accredited inspection laboratory and are marked as follows:

"Federal eagle", approval number "BZT G750822K", name of the distributing company "Breitling AG, CH-2540 Grenchen", model designation "Breitling Emergency"

This identification must be printed permanently on the casing and visible on the outside at all times. Because of the radio's smallness we agree to the identification being printed on the packaging, on the instruction manual or on the guarantee slip.

As a precaution we would draw your attention to the fact that the wording of the general allocation allows for its revocation. The frequency allocation will be withdrawn if, in particular, the radio sets are changed or when they are operated it turns out that they cause interference with other telecommunications equipment.

The official gazette concerned can be obtained from the Post Office's publishing department (Deutsche Post AG, Pressepostvertriebszentrum, Presse-Service, P.O. Box 130186, 50495 Cologne).

The costs arising from the processing of this application for the granting of a general allocation will be invoiced to you separately by the Posts and Telecommunications Regulatory Body (Reg TP).

The general allocation includes the condition that a copy or reprint of this general allocation be attached to each unit to be marketed under the aforesaid test number. The approval to connect this radio set with other telecommunications equipment is dependent on the relevant provisions.

Information on these is given out by the responsible regional branches of the Reg TP.

Yours sincerely

[signature]

Zschaschler

Vfg 5/1998

Enclosed

- copy of the order in the official gazette
- important notice

General allocation No. 822 for use by the public when operating radio transmitters from the firm of Breitling AG, CH-2540 Grenchen.

- 1 Under '47 Sects. 1 and 5 of the Telecommunications Law (TKG) of 25th July 1996 (BGBI 1S. 1120) the frequency **121.5 MHZ** has hereby been assigned for use by the public when operating radio transmitters manufactured by the company of Breitling AG, CH-2540 Grenchen and bearing the model designation of "**Breitling Emergency**". The 121.5 MHZ frequency is the international emergency frequency for air travel. The radio set consists of a transmitter built into a wristwatch, with an integrated antenna having a radiation efficiency of maximum 36 mW and a bandwidth of up to 70 kHz. The transmitter is activated by pulling the antenna out of the casing for a once only usage.
- 2 The transmitter may only be activated in genuine emergencies and solely within the context of air travel.
- 3 Functional testing of the transmitter may only be carried out using the check receiver supplied along with it by the manufacturer and in accordance with the instructions in the radio sets' accompanying documentation.
- 4 The radio sets are to be identified as follows: the "**Federal eagle**", the approval number "**BZT G750822K**" as well as the name of the distributing company "**Breitling AG, CH-2540 Grenchen**" and the model designation "**Breitling Emergency**".
- 5 Other telecommunications and radio equipment must not be subjected to interference whilst this frequency is being used.
- 6 The Posts and Telecommunications Regulatory Body (Reg TP) can at any time change the conditions governing this general allocation or revoke it.
- 7 If this general allocation expires, the BMPT's provisions on putting out of service radio-transmitters, which fall under this general allocation, must be observed.

Additional notes for the manufacturers, distributors and users of a radio set sold under this general allocation.

1. The above radios are not official emergency transmitters approved for use in aircraft.
2. No additional, individual frequency allocations are required if the radios sold for use on this frequency and for this application comply with the build sample which has been electrically and mechanically tested at an accredited inspection laboratory and if they are marked as specified in clause 4 of the above provisions.

3. The identification markings are to be placed in a properly visible location on the radio set's housing, either on a maker's plate or on a locally contiguous area if the chosen manner of this identification takes the form of stamping or engraving. The markings must be permanent, proof against wear, so affixed to the casing as to be destroyed if removed and externally visible at all times.
4. The company manufacturing or distributing these radio sets is bound to attach a complete reprint of this general allocation to each set to be sold under the aforementioned seal of approval.
5. The above mentioned transmission and receiver units must satisfy the provisions of the EMVG (Electromagnetic Interference Law) and those of a CE seal.
6. The subject of this public frequency allocation is neither that of personal safety in electromagnetic fields nor the electrical and mechanical safety of radio sets, including their antennae. The relevant conditions and provisions apply thereto.
7. This public frequency allocation only relates to frequency usage aspects under the laws governing telecommunications. Other provisions, including those encompassed by telecommunications legislation and third party rights, in particular any additional requisite permits and approvals, e.g. as stipulated under private law or that governing manufacture, remain unaffected.

Notarial Certification no. 84/98

The undersigned notary public of the Swiss Canton of Solothurn certifies hereby that the above english document is translated analogous to the attached german fax copy (upto Vfg. 5/1998 to point 7 and pages 2 and 3).

Solothurn, February 3, 1998



The notary public

A handwritten signature consisting of the letters "B. S." followed by a dash.

Brigitte Süssmann, notary

ENCLOSURE



Regulierungsbehörde für Telekommunikation und Post

Regulierungsbehörde für Telekommunikation und Post • Postfach 80 01 • 55003 Mainz

Breitling AG
z.Hd. Herrn Olivier Desjeux
P.O. Box 1132

CH-2540 Grenchen

Ihr Zeichen, Ihre Nachricht vom
J.-P.Girardin, 06.01.1998

Unser Zeichen, unsere Nachricht vom
318-3 B 3583-1/3580

Tel. (0 61 31) Fax (0 61 31)
18-1223 18-5616
oder 18-0

Mainz,
26.01.1998

Allgemeinzuteilung von Frequenzen zur Nutzung durch bestimmte Funkanlagen;
Nr. 822 "Breitling Emergency"

Sehr geehrte Damen und Herren,

auf Grund § 47 Abs. 1 und 5 des Telekommunikationsgesetzes (TKG) vom 25. Juli 1996 (BGBl. I S. 1120) wurde die Frequenz 121,5 MHz der Allgemeinheit zur Nutzung durch die von Ihnen vertriebene Funkanlage mit der Typenbezeichnung "Breitling Emergency" und dem Zulassungszeichen Bundesadler "BZT G750822K", zugeteilt. Die als Anlage beigelegte Allgemeinzuteilung wurde im Amtsblatt der Regulierungsbehörde für Telekommunikation und Post Nr. 1/98 unter der Verfügungsnr. Reg TP 5/1998 veröffentlicht.

Funkanlagen, die unter diese Allgemeinzuteilung fallen, können gebührenfrei betrieben werden und bedürfen keiner Frequenzzuteilung im Einzelnen, wenn sie mit dem bei einem akkreditierten Prüflabor technisch geprüften Baumuster elektrisch und mechanisch übereinstimmen und wie folgt gekennzeichnet sind:

**"Bundesadler", Zulassungsnummer "BZT G750822K", Name der Vertriebsfirma "Breitling AG,
CH-2540 Grenchen", Typenbezeichnung "Breitling Emergency"**

Diese Kennzeichnung muß grundsätzlich dauerhaft an das Gehäuse angebracht und von außen jederzeit sichtbar sein. Wegen zu geringer Größe der Funkanlage stimmen wir der Kennzeichnung auf der Verpackung, der Gebrauchsanweisung oder dem Garantieschein zu.

Wir machen vorsorglich darauf aufmerksam, daß nach dem Wortlaut der Allgemeinzuteilung ein Widerruf möglich ist. Die Frequenzzuteilung wird insbesondere dann widerrufen werden, wenn die Funkanlagen geändert werden oder wenn sich beim Betreiben herausstellen sollte, daß die Funkanlagen andere Telekommunikationsanlagen stören.

Behördensitz
Bad Godesberg
Heinrich-von-Stephan-Str. 1
53175 Bonn
Tel. (0 28) 14-0
<http://www.regtlp.de>

Telefax Bonn
(02 28) 14-88 72
E-mail
poststelle@regtp.de
Internet
<http://www.regtlp.de>

X.400
S=poststelle
P=regtp
A=bund400
C=de

Kontoverbindungen
Bundeskasse Koblenz
LZB Koblenz
(BLZ 570 000 00)
Konto-Nr. 570 010 01

Bundeskasse Koblenz
Postbank Ludwigshafen
(BLZ 545 100 67)
Konto-Nr. 58 88-672

Dienstgebäude Mainz
Canisiusstr. 21
55122 Mainz
Telefax
(0 61 31) 18-56 00

Das betreffende Amtsblatt kann vom Verlagspostamt (Deutsche Post AG - Pressepostvertriebszentrum - Presse-Service - Postfach 13 01 66 - 50495 Köln) bezogen werden.

Die bei der Bearbeitung Ihres Antrages auf Erteilung einer Allgemeinzuteilung anfallenden Kosten wird Ihnen die Regulierungsbehörde für Post und Telekommunikation (Reg TP) gesondert in Rechnung stellen.

Die Allgemeinzuteilung enthält die Auflage, daß jedem unter der vorgenannten Prüfnummer in Verkehr zu bringenden Gerät eine Kopie bzw. ein Nachdruck des Wortlauts dieser Allgemeinzuteilung beizufügen ist. Die Genehmigung zum Verbinden dieser Funkanlage mit anderen Telekommunikationsanlagen richtet sich nach den jeweiligen Vorschriften.

Auskünfte hierzu erteilen die regional zuständigen Außenstellen der Reg TP.

Mit freundlichen Grüßen

Im Auftrag



Zschaschler

Anlage

- Kopie der Verfügung im Amtsblatt
- wichtiger Hinweis



Beeinträchtigungen durch andere Frequenznutzer im gleichen Frequenzbereich.

Zusatzhinweise für die Hersteller- bzw. Vertriebsfirma und die Benutzer einer unter dieser Allgemeinzuteilung in den Verkehr gebrachten Funkanlage

1. Es bedarf keiner weiteren Frequenzzuteilung und keiner Konformitätsbewertung im Sinne des § 61 TKG im einzelnen, wenn die für diese Frequenznutzung und diesen Verwendungszweck in Verkehr gebrachten Funkanlagen mit dem bei einem akkreditierten Prüflabor technisch geprüften Baumuster elektrisch und mechanisch übereinstimmen und wie unter Ziffer 2 der o.a. Bestimmungen beschrieben, gekennzeichnet sind.
 2. Die Kennzeichnung ist am Gehäuse der Funkanlagen, entweder auf einem Typenschild oder an örtlich zusammenhängender Stelle, wenn die Form einer Prägung oder Gravur gewählt wird, an gut sichtbarer Stelle anzubringen. Die Kennzeichnung muß dauerhaft und abnutzungssicher ausgeführt und so mit dem Gehäuse verbunden sein, daß sie beim Entfernen zerstört wird. Sie muß von außen jederzeit sichtbar sein.
 3. Die Vertriebsfirma dieser Funkanlagen ist verpflichtet, jedem unter dem o. g. Zulassungszeichen in den Verkehr zu bringenden Funkgerät einen vollständigen Nachdruck dieser Allgemeinzuteilung beizufügen.
 4. Auf Grund dieser allgemeinen Frequenzzuteilung dürfen diese Funkanlagen mit anderen Telekommunikationsanlagen zusammengeschaltet werden, soweit dafür ein Bedarf besteht und die jeweiligen technischen und telekommunikationsrechtlichen Anforderungen erfüllt werden.
- Sofern die Telekommunikationsanlagen, mit denen diese Funkanlagen zusammengeschaltet werden sollen, mit öffentlichen Telekommunikationsnetzen verbunden sind, bedarf diese Zusammenschaltung der vorherigen schriftlichen Genehmigung der Regulierungsbehörde für Telekommunikation und Post. Entsprechende Auskünfte erteilen die zuständigen Außenstellen der RegTP.
5. Die obengenannten Sende- und Empfangsfunkanlagen müssen die Vorschriften des EMVG erfüllen, also auch eine CE-Kennzeichnung tragen.
 6. Diese allgemeine Frequenzzuteilung hat weder die Sicherheit von Personen in elektromagnetischen Feldern noch die elektrische und mechanische Sicherheit der Funkanlagen einschließlich der Antennenanlagen zum Gegenstand. Hierfür gelten die einschlägigen Bestimmungen und Vorschriften.
 7. Diese allgemeine Frequenzzuteilung betrifft nur telekommunikationsrechtliche Aspekte der Frequenznutzung. Sonstige Vorschriften, auch telekommunikationsrechtlicher Art, und Rechte Dritter, insbesondere ggf. zusätzliche erforderliche Zulassungen und Genehmigungen, z.B. baurechtlicher oder privatrechtlicher Art bleiben unberührt.

318-3

Vfg 5/1998

Allgemeinzuteilung Nr. 822 für die Benutzung durch die Allgemeinheit unter Verwendung von Sendefunkanlagen der Firma Breitling AG, CH-2540 Grenchen

1. Hiermit wird auf Grund § 47 Abs. 1 und 5 des Telekommunikationsgesetzes (TKG) vom 25. Juli 1996 (BGBI. I S. 1120) die Frequenz 121,5 MHz als Allgemeinzuteilung für die Benutzung durch die Allgemeinheit unter Verwendung von Sendefunkanlagen der Herstellerfirma Breitling AG, CH-2540 Grenchen, mit der Typenbezeichnung „Breitling Emergency“ zugeteilt. Die Frequenz 121,5 MHz ist die internationale Notruffrequenz der Luft-

fahrt. Bei den Funkanlagen handelt es sich um einen in einer Armbanduhr eingebauten Sender mit integrierter Antenne mit einer Strahlungsleistung von maximal 36 mW und einer belegten Bandbreite von bis zu 70 kHz. Der Sender wird durch Herausziehen der Antenne aus dem Gehäuse zum einmaligen Gebrauch aktiviert.

2. Der Sender darf nur in echten Notfällen und ausschließlich im Rahmen der Luftfahrt aktiviert werden.
3. Die Funktionskontrolle des Senders darf ausschließlich mit dem vom Hersteller mitgelieferten Kontrollempfänger nach den Anweisungen aus den Begleitpapieren der Funkanlage erfolgen.
4. Die Funkanlagen sind wie folgt zu kennzeichnen: Bundesadler, Zulassungsnummer „BZT G750822K“, sowie Name der Vertriebsfirma „Breitling AG, CH-2540 Grenchen“ und der Typenbezeichnung „Breitling Emergency“
5. Im Rahmen dieser Frequenznutzung dürfen andere Telekommunikationsanlagen sowie andere Funkanlagen nicht gestört werden.
6. Die Regulierungsbehörde für Telekommunikation und Post (Reg TP) kann die Bestimmungen dieser Allgemeinzuteilung jederzeit ändern oder diese Allgemeinzuteilung jederzeit widerrufen.
7. Erlöscht diese Allgemeinzuteilung, so sind die Anordnungen des BMPT über die Außerbetriebnahme der Funkanlagen, die unter diese Allgemeinzuteilung fallen, zu befolgen.

Zusatzhinweise für die Hersteller- bzw. Vertriebsfirma und die Benutzer einer unter dieser Allgemeinzuteilung in den Verkehr gebrachten Funkanlage

1. Bei den o.g. Funkanlagen handelt es sich nicht um offizielle Notsender, die für die Benutzung in Luftfahrzeugen zugelassen sind.
2. Es bedarf keiner weiteren Frequenzzuteilung im einzelnen, wenn die für diese Frequenznutzung und diesen Verwendungszweck in Verkehr gebrachten Funkanlagen mit dem bei einem akkreditierten Prüflabor technisch geprüften Baumuster elektrisch und mechanisch übereinstimmen und wie unter Ziffer 4 der o.a. Bestimmungen beschrieben, gekennzeichnet sind.
3. Die Kennzeichnung ist am Gehäuse der Funkanlagen, entweder auf einem Typenschild oder an örtlich zusammenhängender Stelle, wenn die Form einer Prägung oder Gravur gewählt wird, an gut sichtbarer Stelle anzubringen. Die Kennzeichnung muß dauerhaft und abnutzungssicher ausgeführt und so mit dem Gehäuse verbunden sein, daß sie beim Entfernen zerstört wird. Sie muß von außen jederzeit sichtbar sein.
4. Die Hersteller- bzw. Vertriebsfirma dieser Funkanlagen ist verpflichtet, jedem unter dem o. g. Zulassungszeichen in den Verkehr zu bringenden Funkgerät einen vollständigen Nachdruck dieser Allgemeinzuteilung beizufügen.
5. Die obengenannten Sende- und Empfangsfunkanlagen müssen die Vorschriften des EMVG erfüllen, also auch eine CE-Kennzeichnung tragen.
6. Diese allgemeine Frequenzzuteilung hat weder die Sicherheit von Personen in elektromagnetischen Feldern noch die elektrische und mechanische Sicherheit der Funkanlagen einschließlich der Antennenanlagen zum Gegenstand. Hierfür gelten die einschlägigen Bestimmungen und Vorschriften.
7. Diese allgemeine Frequenzzuteilung betrifft nur telekommunikationsrechtliche Aspekte der Frequenznutzung. Sonstige Vorschriften, auch telekommunikationsrechtlicher Art, und Rechte Dritter, insbesondere ggf. zusätzliche erforderliche Zulassungen und Genehmigungen, z.B. baurechtlicher oder privatrechtlicher Art bleiben unberührt.

318-3

Muster der Kennzeichnung



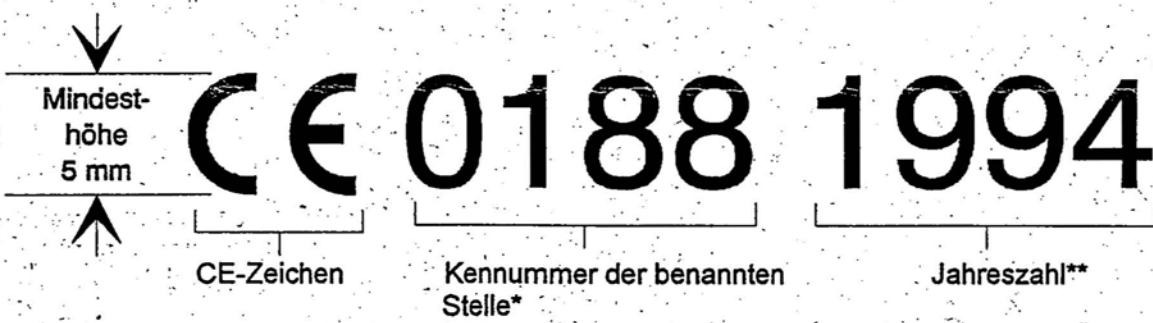
Typenbezeichnung

Firmenbezeichnung

Wichtiger Hinweis bezüglich des EMVG

Seit dem 01.01.96 an darf kein Sendefunkgerät mehr in den Verkehr gebracht werden, für dessen Typ keine EG-Baumusterbescheinigung nach § 5 Abs. 4 EMVG erteilt wurde. Alle Funkgeräte müssen nach § 5 Abs. 1 Nr. 2 EMVG mit der CE-Kennzeichnung gekennzeichnet sein; der Inverkehrbringer muß eine EG-Konformitätserklärung bereithalten.

Kennzeichnung gemäß EMVG bis 01.01.97:



* Kennnummer der benannten Stelle nur bei Sendefunkgeräten

** Vom 02.01.97 an müssen die Kennnummer der benannten Stelle und die Jahreszahl entfallen

6

REGULIERUNGSBEHÖRDE FÜR TELEKOMMUNIKATION UND POST

Regulatory Authority For Telecommunications and Posts

EG-BAUMUSTERBESCHEINIGUNG EC Type-Examination Certificate

Registriernummer:
Registration no.:

B133719K

Anlage(n): 1
Annex(es):

Benannte Stelle:
Notified Body:

Regulierungsbehörde für Telekommunikation und Post

Bescheinigungsinhaber:
Certificate Holder:

BREITLING SA
P.O.Box 1132

CH-2540 GRENCHEN

Produktbezeichnung:
Designation of product:

Breitling Emergency E56121

Produktbeschreibung:
Product description:

Funkanlage geringer Leistung

Angewandte Normen:
Used Norms:

Störaussendung:
(Emission)

ETS 300 683, Juni 1997

Störfestigkeit:
(Immunity)

ETS 300 683, Juni 1997

Klasse:
(Class)

1

Die EG-Baumusterbescheinigung mit Ausstellungsdatum 29.01.98 wird hiermit ungültig.

Diese Bescheinigung ist erstellt in Übereinstimmung mit der Richtlinie 89/336/EWG (Amtsblatt der Europäischen Gemeinschaften Nr. L 139 v. 23. Mai 1989)

This certificate is issued according to the directive 89/336/EEC (Office Journal of the European Communities L 139 from 23. May 1989)

Ort, Datum: Saarbrücken, 25.02.98
Place, Date:

Unterschrift:
Signed:



Hans-Werner Bies

Bestandteile der technischen Dokumentation

Prüfbericht 1388/00160/97 vom 16.12.1997

7

Civil Aviation Authority
Safety Regulation Group
Aviation House
South Area
Gatwick Airport
Gatwick
West Sussex RH6 0YR



REÇU - 1 OCT 1998

Switchboard 01293 567171
Direct Dial 01293 573132
Fax 01293 573975
Telex 878753

Design & Production
Standards Division

Ref : 9/40:25-66-02/BRE
04967H RLCI

Date : 29/09/1998

For the attention of: Mr J-P Girardin

Dear Mr Girardin

With reference to your application dated 16/09/98 we hereby advise you that in accordance with BCAR B4-10, CAA Validation Certification has been granted.

Please find enclosed your Approval Certificate.

Yours sincerely

A handwritten signature in black ink that reads "William J Anthony". The signature is fluid and cursive, with "William" and "J" being more formal and "Anthony" being more cursive.

Mr W J Anthony
For Head of Systems and Equipment Department

Approval Under
BCAR B4-10

CIVIL AVIATION
AUTHORITY

United Kingdom
Civil Aviation Authority

AIR NAVIGATION ORDER
AIRCRAFT EQUIPMENT APPROVAL

Breitling SA

CAA VALIDATION CERTIFICATION
APPROVAL NUMBER : VC01144

Pursuant to the Air Navigation Order for the time being in force and subject to the Conditions annexed hereto, the UK Civil Aviation Authority hereby approves :

Equipment Category : ELT - Automatically Deployable

Master Type Description : Emergency Locator Watch

Master Type/Model Number : E56121

<u>Approval Date</u>	<u>Type</u>	<u>Part No</u>	<u>DDP:Issue</u>
29/09/1998			100 : 01
		E56121.1	

Remarks : Non mandatory equipment designed to be worn on the
pilots wrist. See DDP for details.

This Approval shall remain in force unless suspended, revoked or varied.

William John Anthony

for the Civil Aviation Authority.
Date : 29/09/1998

8

P.O. BOX
2540 GRENCHEN
SWITZERLAND



Phone: +41/32/654'54'54
Fax: +41/32/654'54'08

Declaration of Design and Performance (DDP)

DDP No. 100

Issue No. 01

1 Name and address of manufacturer.

Breitling SA
Schlachthausstrasse 2
CH - 2540 Grenchen
Switzerland

2 Description of article.

The Breitling Emergency is a multifunction chronograph watch equipped with a micro-transmitter broadcasting on the aviation distress frequency 121.5 MHz. The Emergency personal transmitter-watch will complement any ELT required by aviation regulations and increase the chance of being located.

Type No	: E56121,
Modification standard	: .1,
Mechanical master drawing record	: MON702C3822,
Electronic master drawing record	: 2234-603B223,
Weight	: 141g (watch: 85g, bracelet: 56g),
Watch dimensions	: diameter 43 mm, thickness 15.80 mm,
Bracelet dimensions	: width 22-18 mm, length 183 mm (incl. sizing links),
Main antenna length	: 43 cm,
Auxiliary antenna length	: 60 cm.

3 Specifications reference.

EUROCAE ED-62 (Aircraft emergency locator transmitters),
ETS 300-152 (Emergency position indicating radio beacons),
ETS 300-220 (Radio equipment and systems; short range devices),
ETS 300-683 (Radio equipment and systems; electromagnetic compatibility).

4 Rated performance.

Frequency	: 121.5 MHz ± 3.5 kHz,
Type of modulation	: A3X (AM),
Power of modulation peak sent to antenna	: > 30mW,
Power reserve at 20°C	: 48 hours,
MTBF transmitter	: 50'000 hours.

5 Particulars of approvals.

Switzerland	: Zulassungsverfügung BAKOM 95.0559.F.P,
Austria	: Bundesgesetzblatt, 73. Verordnung, Anlage 3,
Germany	: Allgemeinezuteilung Nr. 822, Zulassungsnummer BZT G7500822K.

6 Reference to qualification test report.

Switzerland	: SWISS TELECOM PTT, FE 67.5032 B,
Germany	: BZT, 523-13g/00203/97, BZT, 1388/00160/97.

7 Service and Instruction Manual.

P20.03 (user's guide),
MNT 56121 (maintenance procedure),
CTL 56121 (quality control procedure),

Note : After-sales service is under direct control of Breitling in Switzerland. Each overhauled product follows exactly the same quality control process as the production quality control.

8 Level of compliance with the EUROCAE ED-62 and any deviations therefrom.

1.2 Type of ELT : Survival (ELT (S)).

Notes on Chapter 2 "General Design Requirements" :

- 2.8.4 The use of a highly visible color is not applicable. As the watch is designed to be worn on the wrist, the survivor is found immediately upon location of the Emergency.
- 2.10.2 To guarantee the transmitter's performance at temperature below 5°C, the watch has to be worn on the wrist (see Emergency information booklet P20.03 page 14).
- 2.16.3 Designed to be worn on the wrist, buoyancy of the Emergency is provided by the wearer.

Notes on Chapter 3 "Minimum Performance Specifications Under Standard Test Conditions" :

- 3.1.5 To ensure at least 48 hours of continuous operation within the size constraints of a wristwatch, the power to the antenna has been limited between 30 and 50 mW. But by designing the antenna as a $\frac{1}{2}$ wave dipole, it has been proven that the Emergency will provide standard detection close to the theoretical range (i.e. $\sim 1.2 \times [\sqrt{H_t} + \sqrt{H_r}]$) with normal location accuracy in usual operating conditions (see test reports below).
Test reports reference : Breitling Homing, SAREX 95, RAF Aircraft Cpt. Bastable,
Exercice Breitling, Sécurité Civile Lyon, 22.12.97,
Breitling-Emergency, FOCA, Test on 9 and 17 July 1998.

9 Ability to withstand various ambient conditions or to exhibit various properties.

- a. Working and ultimate pressure or loads :
 - storage or transportation up to 15'000 feet,
 - decompression up to 40'000 feet.
- b. Limitations of voltage and frequency :
 - minimum power supply 4.5 V (nominal power supply 6 V),
 - frequency 121.5 MHz \pm 3.5 kHz
- c. Time rating or duty cycle :
 - 33% duty cycle,
 - ON period of 0.75 second followed by an OFF period of 1.5 second,
 - "B" in Morse code (- . . .) every 60 seconds to identify the source as a Breitling product.
- d. Limits of accuracy of specific test bench to measure :
 - output power \pm 1 mW
 - consumption \pm 0.2 mA
 - battery voltage \pm 50 mV
 - duty cycle \pm 10 ms
- e. Flame/explosion proofness :
 - can be operated in a fuel-vapored-laden environment without igniting the environment.
- f. Fire resistance :
 - all material used are self-extinguishing (fire protection).
- g. Compass safe distance :
 - no specific requirement for non-operating equipment,
 - 1 m safe distance for operating equipment, which is not considered applicable following an aircraft crash.

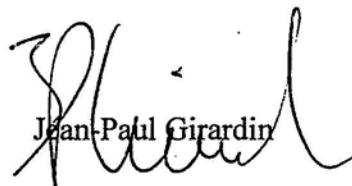
- h. Level of radio interference :
 - phased signal rejection 2 : > 15 dB,
 - phased signals rejection $> 2 : \geq 25$ dB outside modulation spectrum.
- j. Radio and audio frequency susceptibility :
 - operate as intended in an electromagnetic field of 3V/m over a frequency range of 80 - 1'000 MHz .
- k. Degree of vibration which the equipment will withstand :
 - operate as intended with a power spectral density up to 0.04 g²/Hz over a frequency range of between 20 and 1'000 Hz during one hour per axis (3).
- l. Degree of acceleration and shock which the equipment will withstand :
 - operate as intended after one shock of 3'500 g per direction (6).
- m. Degree of waterproofness or sealing of equipment :
 - waterproof 30 m.
- n. Ability to resist sand and dust :
 - transmitter operate as intended with blowing dust (10.6 g/m³) or sand up to 150 km/h (rotating bezel of the watch may be affected).
- o. Ability to resist salt spray and aircraft fluids :
 - operate as intended after 48 hours in salt fog (5% NaCl) at 35°C.
- p. Fungus resistance :
 - not applicable (waterproof).
- q. Temperature and altitude category :
 - storage : -20°C/+85°C, 40'000 feet,
 - operating : -10°C/+55°C 15'000 feet.
- r. Humidity category :
 - waterproof.
- s. Other known limitations which may limit the application in the aircraft :
 - none.
- t. Level of software :
 - not applicable.

10 This declaration in this document is made under the authority of Breitling SA.

Breitling SA cannot accept responsibility for equipment used outside the limiting conditions stated above without their agreement.

Date : September 16, 1998

Jean-Paul Girardin





RADIOCOMMUNICATIONS
AGENCY

- 2 NOV. 1998

New King's Beam House
22 Upper Ground
London SE1 9SA



Switchboard/Enquiry Point
Telephone 0171 211 0211
Facsimile 0171 211 0507

Mr A Cottier
Cottier, Hauser, Meyer, Joller et Scroeter
1701 FRIBOURG
Grand Places 14
Switzerland

Direct Tel: 0171 211 0225
Fax: 0171 211 0228
Our Ref: AER/4/23
Your Ref:
Date: 28th October 1998

Dear Mr Cottier

Breitling Emergency Watch

Further to our correspondance in September 1997 I can now confirm that the United Kingdom Civil Aviation Authority has now type approved the Breitling Emergency Watch for use under the terms and conditions of a Wireless Telegraphy Act Aircraft Radio Licence issued by the Secretary of State.

I am enclosing a copy of the type approval certificate and hope that this assists.

Yours sincerely

Stephen Hand
Aeronautical and Maritime Services.



United Kingdom
Civil Aviation Authority

AIR NAVIGATION ORDER
AIRCRAFT EQUIPMENT APPROVAL

Breitling SA

CAA VALIDATION CERTIFICATION
APPROVAL NUMBER : VC01144

Pursuant to the Air Navigation Order for the time being in force and subject to the Conditions annexed hereto, the UK Civil Aviation Authority hereby approves :

Equipment Category : ELT - Automatically Deployable

Master Type Description : Emergency Locator Watch

Master Type/Model Number : E56121

<u>Approval Date</u>	<u>Type</u>	<u>Part No</u>	<u>DDP:Issue</u>
29/09/1998			100 : 01
		E56121.1	

Remarks : Non mandatory equipment designed to be worn on the pilots wrist. See DDP for details.

This Approval shall remain in force unless suspended, revoked or varied.

William John Anthony



for the Civil Aviation Authority.
Date : 29/09/1998

10

DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 9 March 1999

on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity

**THE EUROPEAN PARLIAMENT AND THE COUNCIL
OF THE EUROPEAN UNION,**

Having regard to the Treaty establishing the European Community, and in particular Article 100a,

Having regard to the proposal from the Commission (¹),

Having regard to the opinion of the Economic and Social Committee (²),

Acting in accordance with the procedure laid down in Article 189b of the Treaty (³), in the light of the joint text approved by the Conciliation Committee on 8 December 1998,

- (1) Whereas the radio equipment and telecommunications terminal equipment sector is an essential part of the telecommunications market, which is a key element of the economy in the Community; whereas the directives applicable to the telecommunications terminal equipment sector are no longer capable of accommodating the expected changes in the sector caused by new technology, market developments and network legislation;
- (2) Whereas in accordance with the principles of subsidiarity and proportionality referred to in Article 3b of the Treaty, the objective of creating an open competitive single market for telecommunications equipment cannot be sufficiently achieved by the Member States and can therefore be better achieved by the Community; whereas this Directive does not go beyond what is necessary to achieve this aim;
- (3) Whereas Member States may rely upon Article 36 of the Treaty to exclude certain classes of equipment from this Directive;
- (4) Whereas Directive 98/13/EC (⁴) consolidated the provisions relating to telecommunications terminal equipment and satellite earth station equipment, including measures for the mutual recognition of their conformity;

(¹) OJ C 248, 14.8.1997, p. 4.

(²) OJ C 73, 9.3.1998, p. 10.

(³) Opinion of the European Parliament of 29 January 1998 (OJ C 56, 23.2.1998, p. 27), Council common position of 8 June 1998 (OJ C 227, 20.7.1998, p. 37) and Decision of the European Parliament of 6 October 1998 (OJ C 328, 26.10.1998, p. 32). Decision of the Council of 25 January 1999 and Decision of the European Parliament of 10 February 1999.

(⁴) OJ L 74, 12.3.1998, p. 1.

(5) Whereas that Directive does not cover a substantial proportion of the radio equipment market;

(6) Whereas dual-use goods are subject to the Community regime of export controls introduced by Council Regulation (EC) No 3381/94 (⁵);

(7) Whereas the broad scope of this Directive requires new definitions of the expressions 'radio equipment' and 'telecommunications terminal equipment'; whereas a regulatory regime aimed at the development of a single market for radio equipment and telecommunications terminal equipment should permit investment, manufacture and sale to take place at the pace of technology and market developments;

(8) Whereas, given the increasing importance of telecommunications terminal equipment and networks using radio transmission besides equipment connected through wired links, any rules governing the manufacturing, marketing and use of radio equipment and telecommunications terminal equipment should cover both classes of such equipment;

(9) Whereas Directive 98/10/EC of the European Parliament and of the Council of 26 February 1998 on the application of open network provision (ONP) to voice telephony and on universal service for telecommunications in a competitive environment (⁶) calls on national regulatory authorities to ensure the publication of details of technical interface specifications for network access for the purpose of ensuring a competitive market for the supply of terminal equipment;

(10) Whereas the objectives of Council Directive 73/23/EEC of 19 February 1973 on the harmonisation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits (⁷) are sufficient to cover radio equipment and telecommunications terminal equipment, but with no lower voltage limit applying;

(⁵) OJ L 367, 31.12.1994, p. 1.

(⁶) OJ L 101, 1.4.1998, p. 24.

(⁷) OJ L 77, 26.3.1973, p. 29. Directive as amended by Directive 93/68/EEC (OJ L 220, 30.8.1993, p. 1).

- (11) Whereas the electromagnetic compatibility related protection requirements laid down by Council Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of Member States relating to electromagnetic compatibility⁽¹⁾ are sufficient to cover radio equipment and telecommunications terminal equipment;
- (12) Whereas Community law provides that obstacles to the free movement of goods within the Community, resulting from disparities in national legislation relating to the marketing of products, can only be justified where any national requirements are necessary and proportionate; whereas, therefore, the harmonisation of laws must be limited to those requirements necessary to satisfy the essential requirements relating to radio equipment and telecommunications terminal equipment;
- (13) Whereas the essential requirements relevant to a class of radio equipment and telecommunications terminal equipment should depend on the nature and the needs of that class of equipment; whereas these requirements must be applied with discernment in order not to inhibit technological innovation or the meeting of the needs of a free-market economy;
- (14) Whereas care should be taken that radio equipment and telecommunications terminal equipment should not represent an avoidable hazard to health;
- (15) Whereas telecommunications are important to the well-being and employment of people with disabilities who represent a substantial and growing proportion of the population of Europe; whereas radio equipment and telecommunications terminal equipment should therefore in appropriate cases be designed in such a way that disabled people may use it without or with only minimal adaptation;
- (16) Whereas radio equipment and telecommunications terminal equipment can provide certain functions required by emergency services;
- (17) Whereas some features may have to be introduced on the radio equipment and telecommunications terminal equipment in order to prevent the infringement of personal data and privacy of the user and of the subscriber and/or the avoidance of fraud;
- (18) Whereas in some cases interworking via networks with other apparatus within the meaning of this Directive and connection with interfaces of the appropriate type throughout the Community may be necessary;
- (19) Whereas it should therefore be possible to identify and add specific essential requirements on user privacy, features for users with a disability, features for emergency services and/or features for avoidance of fraud;
- (20) Whereas it is recognised that in a competitive market, voluntary certification and marking schemes developed by consumer organisations, manufacturers, operators and other industry actors contribute to quality and are a useful means of improving consumers' confidence in telecommunications products and services; whereas Member States may support such schemes; whereas such schemes should be compatible with the competition rules of the Treaty;
- (21) Whereas unacceptable degradation of service to persons other than the user of radio equipment and telecommunications terminal equipment should be prevented; whereas manufacturers of terminals should construct equipment in a way which prevents networks from suffering harm which results in such degradation when used under normal operating conditions; whereas network operators should construct their networks in a way that does not oblige manufacturers of terminal equipment to take disproportionate measures to prevent networks from being harmed; whereas the European Telecommunications Standards Institute (ETSI) should take due account of this objective when developing standards concerning access to public networks;
- (22) Whereas effective use of the radio spectrum should be ensured so as to avoid harmful interference; whereas the most efficient possible use, according to the state of the art, of limited resources such as the radio frequency spectrum should be encouraged;
- (23) Whereas harmonised interfaces between terminal equipment and telecommunications networks contribute to promoting competitive markets both for terminal equipment and network services;
- (24) Whereas, however, operators of public telecommunications networks should be able to define the technical characteristics of their interfaces, subject to the competition rules of the Treaty; whereas, accordingly, they should publish accurate and adequate technical specifications of such interfaces so as to enable manufacturers to design telecommunications terminal equipment which satisfies the requirements of this Directive;

⁽¹⁾ OJ L 139, 23.5.1989, p. 19. Directive as last amended by Directive 93/68/EEC.

- (25) Whereas, nevertheless, the competition rules of the Treaty and Commission Directive 88/301/EEC of 16 May 1988 on competition in the markets in telecommunications terminal equipment⁽¹⁾ establish the principle of equal, transparent and non-discriminatory treatment of all technical specifications having regulatory implications; whereas therefore it is the task of the Community and the Member States, in consultation with the economic players, to ensure that the regulatory framework created by this Directive is fair;
- (26) Whereas it is the task of the European standardisation organisations, notably ETSI, to ensure that harmonised standards are appropriately updated and drafted in a way which allows for unambiguous interpretation; whereas maintenance, interpretation and implementation of harmonised standards constitute very specialised areas of increasing technical complexity; whereas those tasks require the active participation of experts drawn from amongst the economic players; whereas in some circumstances it may be necessary to provide more urgent interpretation of or corrections to harmonised standards than is possible through the normal procedures of the European standardisation organisations operating in conformity with Directive 98/34/EC of 22 June 1998 of the European Parliament and of the Council laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on information society services⁽²⁾;
- (27) Whereas it is in the public interest to have harmonised standards at European level in connection with the design and manufacture of radio equipment and telecommunications terminal equipment; whereas compliance with such harmonised standards gives rise to a presumption of conformity to the essential requirements; whereas other means of demonstrating conformity to the essential requirements are permitted;
- (28) Whereas the assignment of equipment class identifiers should draw on the expertise of CEPT/ERC and of the relevant European standards bodies in radio matters; whereas other forms of cooperation with those bodies is to be encouraged where possible;
- (29) Whereas, in order to enable the Commission to monitor market control effectively, the Member States should provide the relevant information concerning types of interfaces, inadequate or incor-
- rectly applied harmonised standards, notified bodies and surveillance authorities;
- (30) Whereas notified bodies and surveillance authorities should exchange information on radio equipment and telecommunications terminal equipment with a view to efficient surveillance of the market; whereas such cooperation should make the utmost use of electronic means; whereas, in particular, such cooperation should enable national authorities to be informed about radio equipment placed on their market operating in frequency bands not harmonised in the Community;
- (31) Whereas manufacturers should notify Member States of their intention to place radio equipment on the market using frequency bands whose use is not harmonised throughout the Community; whereas Member States therefore need to put in place procedures for such notification; whereas such procedures should be proportionate and should not constitute a conformity assessment procedure additional to those provided for in Annexes IV or V; whereas it is desirable that those notification procedures should be harmonised and preferably implemented by electronic means and one-stop-shopping;
- (32) Whereas radio equipment and telecommunications terminal equipment which complies with the relevant essential requirements should be permitted to circulate freely; whereas such equipment should be permitted to be put into service for its intended purpose; whereas the putting into service may be subject to authorisations on the use of the radio spectrum and the provision of the service concerned;
- (33) Whereas, for trade fairs, exhibitions, etc., it must be possible to exhibit radio equipment and telecommunications terminal equipment which does not conform to this Directive; whereas, however, interested parties should be properly informed that such equipment does not conform and cannot be purchased in that condition; whereas Member States may restrict the putting into service, including the switching on, of such exhibited radio equipment for reasons related to the effective and appropriate use of the radio spectrum, avoidance of harmful interference or matters relating to public health;
- (34) Whereas radio frequencies are allocated nationally and, to the extent that they have not been harmonised, remain within the exclusive competence of the Member States; whereas it is necessary to include a safeguard provision permitting Member States, in conformity with Article 36 of the Treaty, to prohibit,

⁽¹⁾ OJ L 131, 27.5.1988, p. 73. Directive as amended by Directive 94/46/EC (OJ L 268, 19.10.1994, p. 15).

⁽²⁾ OJ L 204, 21.7.1998, p. 37. Directive as amended by Directive 98/48/EC (OJ L 217, 5.8.1998, p. 18).

restrict or require the withdrawal from its market of radio equipment which has caused, or which it reasonably considers will cause, harmful interference; whereas interference with nationally allocated radio frequencies constitutes a valid ground for Member States to take safeguard measures;

- (35) Whereas manufacturers are liable for damage caused by defective apparatus according to the provisions of Council Directive 85/374/EEC⁽¹⁾; whereas without prejudice to any liability on the part of the manufacturer, any person who imports apparatus into the Community for sale in the course of his business is liable according to that Directive; whereas the manufacturer, his authorised representative or the person responsible for placing the apparatus on the Community market is liable according to the rules of the law of contractual or non-contractual liability in the Member States;
- (36) Whereas the measures which are appropriate to be taken by the Member States or the Commission where apparatus declared to be compliant with the provisions of this Directive causes serious damage to a network or harmful radio interference shall be determined in accordance with the general principles of Community law, in particular, the principles of objectivity, proportionality and non-discrimination;
- (37) Whereas on 22 July 1993 the Council adopted Decision 93/465/EEC concerning the modules for the various phases of the conformity assessment procedures and the rules for the affixing and the use of EC conformity marking which are intended to be used in the technical harmonisation directives⁽²⁾; whereas the applicable conformity assessment procedures should preferably be chosen from among the available modules laid down by that Decision;
- (38) Whereas Member States may request that notified bodies they designate and their surveillance authorities be accredited according to appropriate European standards;
- (39) Whereas it is appropriate that compliance of radio equipment and telecommunications terminal equipment with the requirements of Directives 73/23/EEC and 89/336/EEC may be demonstrated using the procedures specified in those Directives where the apparatus is within their scope; whereas, as a result, the procedure provided for in Article 10(1) of Directive 89/336/EEC may be used where the application of harmonised standards gives rise to a presumption of conformity with the protection

requirements; whereas the procedure provided for in Article 10⁽³⁾ may be used where the manufacturer has not applied harmonised standards or where no such standards exist;

- (40) Whereas Community undertakings should have effective and comparable access to third countries' markets and enjoy treatment in third countries similar to that offered in the Community to undertakings owned wholly, controlled through majority ownership or effectively controlled by nationals of the third countries concerned;
- (41) Whereas it is desirable to establish a committee bringing together parties directly involved in the implementation of regulation of radio equipment and telecommunications terminal equipment, in particular the national conformity assessment bodies and national bodies responsible for market surveillance, in order to assist the Commission in achieving a harmonised and proportionate application of the provisions so as to meet the needs of the market and the public at large; whereas representatives of telecommunications operators, users, consumers, manufacturers and service providers should be consulted where appropriate;
- (42) Whereas a modus vivendi between the European Parliament, the Council and the Commission concerning the implementing measures for acts adopted in accordance with the procedure laid down in Article 189b of the Treaty was concluded on 20 December 1994⁽⁴⁾;
- (43) Whereas the Commission should keep under review the implementation and practical application of this and other relevant directives and take steps to ensure coordination of the application of all relevant directives in order to avoid disturbance to telecommunications equipment which affects the health of humans or is harmful to property;
- (44) Whereas the functioning of this Directive should be reviewed in due course in the light of the development of the telecommunications sector and of experience gained from application of the essential requirements and the conformity assessment procedures provided for in this Directive;
- (45) Whereas it is necessary to ensure that with the introduction of changes to the regulatory regime there is a smooth transition from the previous regime in order to avoid disruption to the market and legal uncertainty;

⁽¹⁾ OJ L 210, 7.8.1985, p. 29.

⁽²⁾ OJ L 220, 30.8.1993, p. 23.

⁽³⁾ OJ L 220, 30.8.1993, p. 23.

⁽⁴⁾ OJ C 102, 4.4.1996, p. 1.

(46) Whereas this Directive replaces Directive 98/13/EC, which should accordingly be repealed; whereas Directives 73/23/EEC and 89/336/EEC will no longer apply to apparatus within the scope of this Directive, with the exception of protection and safety requirements and certain conformity assessment procedures,

being of the State in the case of activities pertaining to State security matters) and the activities of the State in the area of criminal law.

Article 2

Definitions

For the purpose of this Directive the following definitions shall apply:

HAVE ADOPTED THIS DIRECTIVE:

CHAPTER I

GENERAL ASPECTS

Article 1

Scope and aim

1. This Directive establishes a regulatory framework for the placing on the market, free movement and putting into service in the Community of radio equipment and telecommunications terminal equipment.

2. Where apparatus as defined in Article 2(a) incorporates, as an integral part, or as an accessory:

- (a) a medical device within the meaning of Article 1 of Council Directive 93/42/EEC of 14 June 1993 concerning medical devices (⁽¹⁾), or
- (b) an active implantable medical device within the meaning of Article 1 of Council Directive 90/385/EEC of 20 June 1990 on the approximation of the laws of the Member States relating to active implantable medical devices (⁽²⁾),

the apparatus shall be governed by this Directive, without prejudice to the application of Directives 93/42/EEC and 90/385/EEC to medical devices and active implantable medical devices, respectively.

3. Where apparatus constitutes a component or a separate technical unit of a vehicle within the meaning of Council Directive 72/245/EEC (⁽³⁾) relating to the radio interference (electromagnetic compatibility) of vehicles or a component or a separate technical unit of a vehicle within the meaning of Article 1 of Council Directive 92/61/EEC of 30 June 1992 relating to the type-approval of two or three-wheel motor vehicles, the apparatus shall be governed by this Directive without prejudice to the application of Directive 72/245/EEC or of Directive 92/61/EEC respectively.

4. This Directive shall not apply to equipment listed in Annex I.

5. This Directive shall not apply to apparatus exclusively used for activities concerning public security, defence, State security (including the economic well-

(a) 'apparatus' means any equipment that is either radio equipment or telecommunications terminal equipment or both;

(b) 'telecommunications terminal equipment' means a product enabling communication or a relevant component thereof which is intended to be connected directly or indirectly by any means whatsoever to interfaces of public telecommunications networks (that is to say, telecommunications networks used wholly or partly for the provision of publicly available telecommunications services);

(c) 'radio equipment' means a product, or relevant component thereof, capable of communication by means of the emission and/or reception of radio waves utilising the spectrum allocated to terrestrial/space radiocommunication;

(d) 'radio waves' means electromagnetic waves of frequencies from 9 kHz to 3 000 GHz, propagated in space without artificial guide;

(e) 'interface' means

(i) a network termination point, which is a physical connection point at which a user is provided with access to public telecommunications network, and/or

(ii) an air interface specifying the radio path between radio equipment

and their technical specifications;

(f) 'equipment class' means a class identifying particular types of apparatus which under this Directive are considered similar and those interfaces for which the apparatus is designed. Apparatus may belong to more than one equipment class;

(g) 'technical construction file' means a file describing the apparatus and providing information and explanations as to how the applicable essential requirements have been implemented;

(h) 'harmonised standard' means a technical specification adopted by a recognised standards body under a mandate from the Commission in conformity with the procedures laid down in Directive 98/34/EC for the purpose of establishing a European requirement, compliance with which is not compulsory.

(¹) OJ L 169, 12.7.1993, p. 1.

(²) OJ L 152, 6.7.1972, p. 15. Directive as last amended by Commission Directive 95/54/EC (OJ L 266, 8.11.1995, p. 1).

(³) OJ L 225, 10.8.1992, p. 72. Directive as amended by the 1994 Act of Accession.

(i) 'harmful interference' means interference which endangers the functioning of a radionavigation service or of other safety services or which otherwise seriously degrades, obstructs or repeatedly interrupts a radio-communications service operating in accordance with the applicable Community or national regulations.

Article 3

Essential requirements

1. The following essential requirements are applicable to all apparatus:

- (a) the protection of the health and the safety of the user and any other person, including the objectives with respect to safety requirements contained in Directive 73/23/EEC, but with no voltage limit applying;
- (b) the protection requirements with respect to electromagnetic compatibility contained in Directive 89/336/EEC.

2. In addition, radio equipment shall be so constructed that it effectively uses the spectrum allocated to terrestrial/space radio communication and orbital resources so as to avoid harmful interference.

3. In accordance with the procedure laid down in Article 15, the Commission may decide that apparatus within certain equipment classes or apparatus of particular types shall be so constructed that:

- (a) it interworks via networks with other apparatus and that it can be connected to interfaces of the appropriate type throughout the Community; and/or that
- (b) it does not harm the network or its functioning nor misuse network resources, thereby causing an unacceptable degradation of service; and/or that
- (c) it incorporates safeguards to ensure that the personal data and privacy of the user and of the subscriber are protected; and/or that
- (d) it supports certain features ensuring avoidance of fraud; and/or that
- (e) it supports certain features ensuring access to emergency services; and/or that
- (f) it supports certain features in order to facilitate its use by users with a disability.

Article 4

Notification and publication of interface specifications

1. Member States shall notify the interfaces which they have regulated to the Commission insofar as the said interfaces have not been notified under the provisions of

Directive 98/34/EC. After consulting the committee in accordance with the procedure set out in Article 15, the Commission shall establish the equivalence between notified interfaces and assign an equipment class identifier, details of which shall be published in the *Official Journal of the European Communities*.

2. Each Member State shall notify to the Commission the types of interface offered in that State by operators of public telecommunications networks. Member States shall ensure that such operators publish accurate and adequate technical specifications of such interfaces before services provided through those interfaces are made publicly available, and regularly publish any updated specifications. The specifications shall be in sufficient detail to permit the design of telecommunications terminal equipment capable of utilising all services provided through the corresponding interface. The specifications shall include, *inter alia*, all the information necessary to allow manufacturers to carry out, at their choice, the relevant tests for the essential requirements applicable to the telecommunications terminal equipment. Member States shall ensure that those specifications are made readily available by the operators.

Article 5

Harmonised standards

1. Where apparatus meets the relevant harmonised standards or parts thereof whose reference numbers have been published in the *Official Journal of the European Communities*, Member States shall presume compliance with those of the essential requirements referred to in Article 3 as are covered by the said harmonised standards or parts thereof.

2. Where a Member State or the Commission considers that conformity with a harmonised standard does not ensure compliance with the essential requirements referred to in Article 3 which the said standard is intended to cover, the Commission or the Member State concerned shall bring the matter before the committee.

3. In the case of shortcomings of harmonised standards with respect to the essential requirements, the Commission may, after consulting the committee and in accordance with the procedure laid down in Article 14, publish in the *Official Journal of the European Communities* guidelines on the interpretation of harmonised standards or the conditions under which compliance with that standard raises a presumption of conformity. After consultation of the committee and in accordance with the procedure laid down in Article 14, the Commission may withdraw harmonised standards by publication of a notice in the *Official Journal of the European Communities*.

*Article 6***Placing on the market**

1. Member States shall ensure that apparatus is placed on the market only if it complies with the appropriate essential requirements identified in Article 3 and the other relevant provisions of this Directive when it is properly installed and maintained and used for its intended purpose. It shall not be subject to further national provisions in respect of placing on the market.
2. In taking a decision regarding the application of essential requirements under Article 3(3), the Commission shall determine the date of application of the requirements. If it is determined that an equipment class needs to comply with particular essential requirements under Article 3(3), any apparatus of the equipment class in question which is first placed on the market before the date of application of the Commission's determination can continue to be placed on the market for a reasonable period. Both the date of application and the period shall be determined by the Commission in accordance with the procedure laid down in Article 14.
3. Member States shall ensure that the manufacturer or the person responsible for placing the apparatus on the market provides information for the user on the intended use of the apparatus, together with the declaration of conformity to the essential requirements. Where it concerns radio equipment, such information shall be sufficient to identify on the packaging and the instructions for use of the apparatus the Member States or the geographical area within a Member State where the equipment is intended to be used and shall alert the user by the marking on the apparatus referred to in Annex VII, paragraph 5, to potential restrictions or requirements for authorisation of use of the radio equipment in certain Member States. Where it concerns telecommunications terminal equipment, such information shall be sufficient to identify interfaces of the public telecommunications networks to which the equipment is intended to be connected. For all apparatus such information shall be prominently displayed.
4. In the case of radio equipment using frequency bands whose use is not harmonised throughout the Community, the manufacturer or his authorised representative established within the Community or the person responsible for placing the equipment on the market shall notify the national authority responsible in the relevant Member State for spectrum management of the intention to place such equipment on its national market.

This notification shall be given no less than four weeks in advance of the start of placing on the market and shall provide information about the radio characteristics of the equipment (in particular frequency bands, channel spacing, type of modulation and RF-power) and the identification number of the notified body referred to in Annex IV or V.

*Article 7***Putting into service and right to connect**

1. Member States shall allow the putting into service of apparatus for its intended purpose where it complies with the appropriate essential requirements identified in Article 3 and the other relevant provisions of this Directive.
2. Notwithstanding paragraph 1, and without prejudice to conditions attached to authorisations for the provision of the service concerned in conformity with Community law, Member States may restrict the putting into service of radio equipment only for reasons related to the effective and appropriate use of the radio spectrum, avoidance of harmful interference or matters relating to public health.
3. Without prejudice to paragraph 4, Member States shall ensure that operators of public telecommunications networks do not refuse to connect telecommunications terminal equipment to appropriate interfaces on technical grounds where that equipment complies with the applicable requirements of Article 3.
4. Where a Member State considers that apparatus declared to be compliant with the provisions of this Directive causes serious damage to a network or harmful radio interference or harm to the network or its functioning, the operator may be authorized to refuse connection, to disconnect such apparatus or to withdraw it from service. The Member States shall notify each such authorisation to the Commission, which shall convene a meeting of the committee for the purpose of giving its opinion on the matter. After the committee has been consulted, the Commission may initiate the procedures referred to in Article 5(2) and (3). The Commission and the Member States may also take other appropriate measures.
5. In case of emergency, an operator may disconnect apparatus if the protection of the network requires the equipment to be disconnected without delay and if the user can be offered, without delay and without costs for him, an alternative solution. The operator shall immediately inform the national authority responsible for the implementation of paragraph 4 and Article 9.

*Article 8***Free movement of apparatus**

1. Member States shall not prohibit, restrict or impede the placing on the market and putting into service in their territory of apparatus bearing the CE marking referred to in Annex VII, which indicates its conformity with all provisions of this Directive, including the conformity assessment procedures set out in Chapter II. This shall be without prejudice to Articles 6(4), 7(2) and 9(5).

2. At trade fairs, exhibitions, demonstrations, etc., Member States shall not create any obstacles to the display of apparatus which does not comply with this Directive, provided that a visible sign clearly indicates that such apparatus may not be marketed or put into service until it has been made to comply.

3. Where the apparatus is subject to other directives which concern other aspects and also provide for the affixing of the CE marking, the latter shall indicate that such apparatus also fulfils the provisions of those other directives. However, should one or more of those directives allow the manufacturer, during a transitional period, to choose which arrangements to apply, the CE marking shall indicate that the apparatus fulfils the provisions only of those directives applied by the manufacturer. In this case, the particulars of those directives, as published in the *Official Journal of the European Communities*, must be given in the documents, notices or instructions required by those directives and accompanying such products.

Article 9

Safeguards

1. Where a Member State ascertains that apparatus within the scope of this Directive does not comply with the requirements of this Directive, it shall take all appropriate measures in its territory to withdraw the apparatus from the market or from service, prohibit its placing on the market or putting into service or restrict its free movement.

2. The Member State concerned shall immediately notify the Commission of any such measures indicating the reasons for its decision and whether non-compliance is due to:

- (a) incorrect application of the harmonised standards referred to in Article 5(1);
- (b) shortcomings in the harmonised standards referred to in Article 5(1);
- (c) failure to satisfy the requirements referred to in Article 3 where the apparatus does not meet the harmonised standards referred to in Article 5(1).

3. If the measures referred to in paragraph 1 are attributed to incorrect application of the harmonised standards referred to in Article 5(1) or to a failure to satisfy the requirements referred to in Article 3 where the apparatus does not meet the harmonised standards referred to in Article 5(1), the Commission shall consult the parties concerned as soon as possible. The Commission shall forthwith inform the Member States of its findings and of its opinion as to whether the measures are justified, within two months of notification of the said measures to the Commission.

4. Where the decision referred to in paragraph 1 is attributed to shortcomings in the harmonised standards referred to in Article 5(1), the Commission shall bring the matter before the committee within two months. The committee shall deliver an opinion in accordance with the procedure laid down in Article 14. After such consultation, the Commission shall inform the Member States of its findings and of its opinion as to whether the action by the Member State is justified. If it finds that the action is justified it shall forthwith initiate the procedure referred to in Article 5(2).

5. (a) Notwithstanding the provisions of Article 6, a Member State may, acting in conformity with the Treaty, and in particular Articles 30 and 36 thereof, adopt any appropriate measures with a view to:

- (i) prohibiting or restricting the placing on its market, and/or
- (ii) requiring the withdrawal from its market, of radio equipment, including types of radio equipment, which has caused or which it reasonably considers will cause harmful interference, including interference with existing or planned services on nationally allocated frequency bands.

(b) Where a Member State takes measures in accordance with subparagraph (a) it shall immediately inform the Commission of the said measures, specifying the reasons for adopting them.

6. When a Member State notifies the Commission of a measure referred to in paragraph 1 or 5 the Commission shall in turn inform other Member States and consult the committee on the matter.

Where, after such consultation, the Commission considers that:

- the measure is justified, it shall immediately so inform the Member State which took the initiative and the other Member States,
- the measure is unjustified, it shall immediately so inform the Member State and request it to withdraw the measure.

7. The Commission shall maintain a record of the cases notified by Member States, which shall be made available to them on request.

CHAPTER II

CONFORMITY ASSESSMENT

Article 10

Conformity assessment procedures

1. The conformity assessment procedures identified in this Article shall be used to demonstrate the compliance of the apparatus with all the relevant essential requirements identified in Article 3.

2. At the choice of the manufacturer, compliance of the apparatus with the essential requirements identified in Article 3(1)(a) and (b) may be demonstrated using the procedures specified in Directive 73/23/EEC and Directive 89/336/EEC respectively, where the apparatus is within the scope of those Directives, as an alternative to the procedures laid out below.

3. Telecommunications terminal equipment which does not make use of the spectrum allocated to terrestrial/space radio communication and receiving parts of radio equipment shall be subject to the procedures described in any one of Annexes II, IV or V at the choice of the manufacturer.

4. Where a manufacturer has applied the harmonised standards referred to in Article 5(1), radio equipment not within the scope of paragraph 3 shall be subject to the procedures described in any one of Annexes III, IV or V at the choice of the manufacturer.

5. Where a manufacturer has not applied or has only applied in part the harmonised standards referred to in Article 5(1), radio equipment not within the scope of paragraph 3 of this Article shall be subject to the procedures described in either of Annexes IV or V at the choice of the manufacturer.

6. Records and correspondence relating to the conformity assessment procedures referred to in paragraphs 2 to 5 shall be in an official language of the Member State where the procedure will be carried out, or in a language accepted by the notified body involved.

Article 11

Notified bodies and surveillance authorities

1. Member States shall notify the Commission of the bodies which they have designated to carry out the relevant tasks referred to in Article 10. Member States shall apply the criteria laid down in Annex VI in determining the bodies to be designated.

2. Member States shall notify the Commission of the authorities established within their territory which are to carry out the surveillance tasks related to the operation of this Directive.

3. The Commission shall publish a list of the notified bodies, together with their identification numbers and the tasks for which they have been notified, in the *Official Journal of the European Communities*. The Commission shall also publish a list of surveillance authorities in the *Official Journal of the European Communities*. Member States shall provide the Commission with all information necessary to keep these lists up to date.

CHAPTER III

CE CONFORMITY MARKING AND INSCRIPTIONS

Article 12

CE marking

1. Apparatus complying with all relevant essential requirements shall bear the EC conformity marking referred to in Annex VII. It shall be affixed under the responsibility of the manufacturer, his authorized representative within the Community or the person responsible for placing the apparatus on the market.

Where the procedures identified in Annex III, IV or V are used, the marking shall be accompanied by the identification number of the notified body referred to in Article 11(1). Radio equipment shall in addition be accompanied by the equipment class identifier where such identifier has been assigned. Any other marking may be affixed to the equipment provided that the visibility and legibility of the EC marking is not thereby reduced.

2. No apparatus, whether or not it complies with the relevant essential requirements, may bear any other marking which is likely to deceive third parties as to the meaning and form of the EC marking specified in Annex VII.

3. The competent Member State shall take appropriate action against any person who has affixed a marking not in conformity with paragraphs 1 and 2. If the person who affixed the marking is not identifiable, appropriate action may be taken against the holder of the apparatus at the time when non-compliance was discovered.

4. Apparatus shall be identified by the manufacturer by means of type, batch and/or serial numbers and by the name of the manufacturer or the person responsible for placing the apparatus on the market.

CHAPTER IV

THE COMMITTEE

Article 13

Constitution of the committee

The Commission shall be assisted by a committee, the Telecommunication Conformity Assessment and Market Surveillance Committee (TCAM), composed of representatives of the Member States and chaired by a representative of the Commission.

Article 14

Advisory committee procedure

1. The committee shall be consulted on the matters covered by Articles 5, 6(2), 7(4), 9(4) and Annex VII(5).

2. The Commission shall consult the committee periodically on the surveillance tasks related to the application of this Directive, and, where appropriate, issue guidelines on this matter.

3. The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft within a time limit which the chairman may lay down according to the urgency of the matter, if necessary by taking a vote.

The opinion shall be recorded in the minutes; in addition, each Member State shall have the right to ask to have its position recorded in the minutes.

The Commission shall take the utmost account of the opinion delivered by the committee. It shall inform the committee of the manner in which its opinion has been taken into account and decide within one month after having received the opinion of the committee.

4. The Commission shall periodically consult the representatives of the telecommunications networks providers, the consumers and the manufacturers. It shall keep the committee regularly informed of the outcome of such consultations.

Article 15

Regulatory committee procedure

1. Notwithstanding the provisions of Article 14, the following procedure shall apply in respect of the matters covered by Articles 3(3) and 4(1).

2. The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft within a time limit which the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148(2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

3. The Commission shall adopt the measures envisaged if they are in accordance with the opinion of the committee.

If the measures envisaged are not in accordance with the opinion of the committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

If, on the expiry of a period of three months from the date of referral to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission.

CHAPTER V

FINAL AND TRANSITIONAL PROVISIONS

Article 16

Third countries

1. Member States may inform the Commission of any general difficulties encountered, *de jure* or *de facto*, by Community undertakings with respect to placing on the market in third countries, which have been brought to their attention.

2. Whenever the Commission is informed of such difficulties, it may, if necessary, submit proposals to the Council for an appropriate mandate for negotiation of comparable rights for Community undertakings in these third countries. The Council shall decide by qualified majority.

3. Measures taken pursuant to paragraph 2 shall be without prejudice to the obligations of the Community and of the Member States under relevant international agreements.

Article 17

Review and reporting

The Commission shall review the operation of this Directive and report thereon to the European Parliament and to the Council, on the first occasion not later than 7 October 2000 18 months after the entry into force of this Directive and every third year thereafter. The report shall cover progress on drawing up the relevant standards, as well as any problems that have arisen in the course of implementation. The report shall also outline the activities of the committee, assess progress in achieving an open competitive market for apparatus at Community level and examine how the regulatory framework for the placing on the market and putting into service of apparatus should be developed to:

- (a) ensure that a coherent system is achieved at Community level for all apparatus;
- (b) allow for convergence of the telecommunications, audiovisual and information technology sectors;
- (c) enable harmonisation of regulatory measures at international level.

It shall in particular examine whether essential requirements are still necessary for all categories of apparatus covered and whether the procedures contained in Annex IV, third paragraph, are proportionate to the aim of ensuring that the essential requirements are met for apparatus covered by that Annex. Where necessary, further measures may be proposed in the report for full implementation of the aim of the Directive.

*Article 18***Transitional provisions**

1. Standards under Directive 73/23/EEC or 89/336/EEC whose references have been published in the *Official Journal of the European Communities* may be used as the basis for a presumption of conformity with the essential requirements referred to in Article 3(1)(a) and Article 3(1)(b). Common technical regulations under Directive 98/13/EC whose references have been published in the *Official Journal of the European Communities* may be used as the basis for a presumption of conformity with the other relevant essential requirements referred to in Article 3. The Commission shall publish a list of references to those standards in the *Official Journal of the European Communities* immediately after this Directive enters into force.

2. Member States shall not impede the placing on the market and putting into service of apparatus which is in accordance with the provisions in Directive 98/13/EC or rules in force in their territory and was placed on the market for the first time before this Directive entered into force or at the latest two years after this Directive entered into force.

3. Apart from the essential requirements referred to in Article 3(1), the Member States may request to continue, for a period of up to 30 months following the date referred to in the first sentence of Article 19(1), and in conformity with the provisions of the Treaty, to require telecommunications terminal equipment not to be capable of causing unacceptable deterioration of a voice telephony service accessible within the framework of the universal service as defined in Directive 98/10/EC.

The Member State shall inform the Commission of the reasons for requesting a continuation of such a requirement, the date by which the service concerned will no longer need the requirement, and the measures envisaged in order to meet this deadline. The Commission shall consider the request taking into account the particular situation in the Member State and the need to ensure a coherent regulatory environment at Community level, and shall inform the Member State whether it deems that the particular situation in that Member State justifies a continuation and, if so, until which date such continuation is justified.

*Article 19***. Transposition**

1. Member States shall not later than 7 April 2000 adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive. They

shall forthwith inform the Commission thereof. They shall apply these provisions as from 8 April 2000.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such a reference shall be laid down by Member States.

2. Member States shall inform the Commission of the main provisions of domestic law which they adopt in the field covered by this Directive.

*Article 20***Repeal**

1. Directive 98/13/EC is hereby repealed as from 8 April 2000.

2. This Directive is not a specific directive within the meaning of Article 2(2) of Directive 89/336/EEC. The provisions of Directive 89/336/EEC shall not apply to apparatus falling within the scope of this Directive, with the exception of the protection requirements in Article 4 and Annex III and the conformity assessment procedure in Article 10(1) and (2) of, and Annex I to, Directive 89/336/EEC, as from 8 April 2000.

3. The provisions of Directive 73/23/EEC shall not apply to apparatus falling within the scope of this Directive, with the exceptions of the objectives with respect to safety requirements in Article 2 and Annex I and the conformity assessment procedure in Annex III, Section B, and Annex IV to Directive 73/23/EEC, as from 8 April 2000.

*Article 21***Entry into force**

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Communities*.

*Article 22***Addressees**

This Directive is addressed to the Member States.

Done at Brussels, 9 March 1999.

*For the European
Parliament*

The President

J. M. GIL-ROBLES

For the Council

The President

W. RIESTER

*ANNEX I***EQUIPMENT NOT COVERED BY THIS DIRECTIVE AS REFERRED TO IN ARTICLE 1(4)**

1. Radio equipment used by radio amateurs within Article 1, definition 53, of the International Telecommunications Union (ITU) radio regulations unless the equipment is available commercially.
Kits of components to be assembled by radio amateurs and commercial equipment modified by and for the use of radio amateurs are not regarded as commercially available equipment.
2. Equipment falling within the scope of Council Directive 96/98/EC of 20 December 1996 on marine equipment (1).
3. Cabling and wiring.
4. Receive only radio equipment intended to be used solely for the reception of sound and TV broadcasting services.
5. Products, appliances and components within the meaning of Article 2 of Council Regulation (EEC) No 3922/91 of 16 December 1991 on the harmonisation of technical requirements and administrative procedures in the field of civil aviation (2).
6. Air-traffic-management equipment and systems within the meaning of Article 1 of Council Directive 93/65/EEC of 19 July 1993 on the definition and use of compatible technical specifications for the procurement of air-traffic-management equipment and systems (3).

(1) OJ L 46, 17.2.1997, p. 25.

(2) OJ L 373, 31.12.1991, p. 4. Regulation as amended by Commission Regulation (EC) No 2176/96 (OJ L 291, 14.11.1996, p. 15).

(3) OJ L 187, 29.7.1993, p. 52. Directive as last amended by Commission Directive 97/15/EC (OJ L 95, 10.4.1997, p. 16).

*ANNEX II***CONFORMITY ASSESSMENT PROCEDURE REFERRED TO IN ARTICLE 10(3)****Module A (internal production control)**

1. This module describes the procedure whereby the manufacturer or his authorised representative established within the Community, who carries out the obligations laid down in point 2, ensures and declares that the products concerned satisfy the requirements of this Directive that apply to them. The manufacturer or his authorised representative established within the Community must affix the CE marking to each product and draw up a written declaration of conformity.
2. The manufacturer must establish the technical documentation described in point 4 and he or his authorised representative established within the Community must keep it for a period ending at least 10 years after the last product has been manufactured at the disposal of the relevant national authorities of any Member State for inspection purposes.
3. Where neither the manufacturer nor his authorised representative is established within the Community, the obligation to keep the technical documentation available is the responsibility of the person who places the product on the Community market.
4. The technical documentation must enable the conformity of the product with the essential requirements to be assessed. It must cover the design, manufacture and operation of the product, in particular:
 - a general description of the product,
 - conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.,
 - descriptions and explanations necessary for the understanding of said drawings and schemes and the operation of the product,
 - a list of the standards referred to in Article 5, applied in full or in part, and descriptions and explanations of the solutions adopted to meet the essential requirements of the Directive where such standards referred to in Article 5 have not been applied or do not exist,
 - results of design calculations made, examinations carried out, etc.,
 - test reports.
5. The manufacturer or his authorised representative must keep a copy of the declaration of conformity with the technical documentation.
6. The manufacturer must take all measures necessary in order that the manufacturing process ensures compliance of the manufactured products with the technical documentation referred to in point 2 and with the requirements of this Directive that apply to them.

ANNEX III**CONFORMITY ASSESSMENT PROCEDURE REFERRED TO IN ARTICLE 10(4)****(Internal production control plus specific apparatus tests) (1)**

This Annex consists of Annex II, plus the following supplementary requirements:

For each type of apparatus, all essential radio test suites must be carried out by the manufacturer or on his behalf. The identification of the test suites that are considered to be essential is the responsibility of a notified body chosen by the manufacturer except where the test suites are defined in the harmonised standards. The notified body must take due account of previous decisions made by notified bodies acting together.

The manufacturer or his authorised representative established within the Community or the person responsible for placing the apparatus on the market must declare that these tests have been carried out and that the apparatus complies with the essential requirements and must affix the notified body's identification number during the manufacturing process.

ANNEX IV**CONFORMITY ASSESSMENT PROCEDURE REFERRED TO IN ARTICLE 10(5)****(Technical construction file)**

This Annex consists of Annex III plus the following supplementary requirements:

The technical documentation described in point 4 of Annex II and the declaration of conformity to specific radio test suites described in Annex III must form a technical construction file.

The manufacturer, his authorised representative established within the Community or the person responsible for placing the apparatus on the market, must present the file to one or more notified bodies, each of the notified bodies must be informed of others who have received the file.

The notified body must review the file and if it is considered that it has not been properly demonstrated that the requirements of the Directive have been met, the notified body may issue an opinion to the manufacturer, his representative or the person responsible for placing the apparatus on the market and must inform the other notified bodies who have received the file accordingly. Such an opinion must be given within four weeks of receipt of the file by the notified body. On receipt of this opinion, or after the end of the four-week period, the apparatus may be placed on the market, without prejudice to Articles 6(4) and 9(5).

The manufacturer or his authorised representative established within the Community or the person responsible for placing the apparatus on the market must keep the file for a period ending at least 10 years after the last apparatus has been manufactured at the disposal of the relevant national authorities of any Member States for inspection.

(1) Annex based on Module A with additional requirements appropriate to the sector.

ANNEX V**CONFORMITY ASSESSMENT PROCEDURE REFERRED TO IN ARTICLE 10****Full quality assurance**

1. Full quality assurance is the procedure whereby the manufacturer who satisfies the obligations of point 2 ensures and declares that the products concerned satisfy the requirements of the Directive that apply to them. The manufacturer must affix the marks referred to in Article 12(1) to each product and draw up a written declaration of conformity.
2. The manufacturer must operate an approved quality system for design, manufacture and final product inspection and testing as specified in point 3 and must be subject to surveillance as specified in point 4.

3. Quality system

- 3.1. The manufacturer must lodge an application for assessment of his quality system with a notified body.

The application must include:

- all relevant information for the products envisaged,
- the quality system's documentation.

- 3.2. The quality system must ensure compliance of the products with the requirements of the Directive that apply to them. All the elements, requirements and provisions adopted by the manufacturer must be documented in a systematic and orderly manner in the form of written policies, procedures and instructions. This quality system documentation must ensure a common understanding of the quality policies and procedures such as quality programmes, plans, manuals and records.

It must contain in particular an adequate description of:

- the quality objectives and the organisational structure, responsibilities and powers of the management with regard to design and product quality,
- the technical specifications, including the harmonised standards and technical regulations as well as relevant test specifications that will be applied and, where the standards referred to in Article 5(1) will not be applied in full, the means that will be used to ensure that the essential requirements of the Directive that apply to the products will be met,
- the design control and design verification techniques, processes and systematic actions that will be used when designing the products pertaining to the product category covered,
- the corresponding manufacturing, quality control and quality assurance techniques, processes and systematic actions that will be used,
- the examinations and tests that will be carried out before, during and after manufacture, and the frequency with which they will be carried out, as well as the results of the tests carried out before manufacture where appropriate,
- the means by which it is ensured that the test and examination facilities respect the appropriate requirements for the performance of the necessary test,
- the quality records, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.,
- the means to monitor the achievement of the required design and product quality and the effective operation of the quality system.

- 3.3. The notified body must assess the quality system to determine whether it satisfies the requirements referred to in point 3.2. It must presume compliance with these requirements in respect of quality systems that implement the relevant harmonised standard.

The notified body must assess in particular whether the quality control system ensures conformity of the products with the requirements of the Directive in the light of the relevant documentation supplied in respect of points 3.1 and 3.2 including, where relevant, test results supplied by the manufacturer.

The auditing team must have at least one member experienced as an assessor in the product technology concerned. The evaluation procedure must include an assessment visit to the manufacturer's premises.

The decision must be notified to the manufacturer. The notification must contain the conclusions of the examination and the reasoned assessment decision.

- 3.4. The manufacturer must undertake to fulfil the obligations arising out of the quality system as approved and to uphold it so that it remains adequate and efficient.

The manufacturer or his authorised representative must keep the notified body that has approved the quality system informed of any intended updating of the quality system.

The notified body must evaluate the modifications proposed and decide whether the amended quality system will still satisfy the requirements referred to in point 3.2 or whether a reassessment is required.

It must notify its decision to the manufacturer. The notification must contain the conclusions of the examination and the reasoned assessment decision.

4. EC surveillance under the responsibility of the notified body

- 4.1. The purpose of surveillance is to make sure that the manufacturer duly fulfils the obligations arising out of the approved quality system.

- 4.2. The manufacturer must allow the notified body access for inspection purposes to the locations of design, manufacture, inspection and testing, and storage and must provide it with all necessary information, in particular:

- the quality system documentation,
- the quality records as foreseen by the design part of the quality system, such as results of analyses, calculations, tests, etc.,
- the quality records as foreseen by the manufacturing part of the quality system, such as inspection reports and test data, calibration data, qualification reports of the personnel concerned, etc.

- 4.3. The notified body must carry out audits at reasonable intervals to make sure that the manufacturer maintains and applies the quality system and must provide an audit report to the manufacturer.

- 4.4. Additionally, the notified body may pay unexpected visits to the manufacturer. At the time of such visits, the notified body may carry out tests or have them carried out in order to check the proper functioning of the quality system where necessary; it must provide the manufacturer with a visit report and, if a test has been carried out, with a test report.

5. The manufacturer must, for a period ending at least 10 years after the last product has been manufactured, keep at the disposal of the national authorities:

- the documentation referred to in the second indent of point 3.1,
- the updating referred to in the second paragraph of point 3.4,
- the decisions and reports from the notified body which are referred to in the final paragraph of point 3.4 and in points 4.3 and 4.4.

6. Each notified body must make available to the other notified bodies the relevant information concerning quality system approvals including references to the product(s) concerned, issued and withdrawn.

*ANNEX VI***MINIMUM CRITERIA TO BE TAKEN INTO ACCOUNT BY MEMBER STATES WHEN DESIGNATING NOTIFIED BODIES IN ACCORDANCE WITH ARTICLE 11(1)**

1. The notified body, its director and the staff responsible for carrying out the tasks for which the notified body has been designated must not be a designer, manufacturer, supplier or installer of radio equipment or telecommunications terminal equipment, or a network operator or a service provider, nor the authorised representative of any of such parties. They must be independent and not become directly involved in the design, construction, marketing or maintenance of radio equipment or telecommunications terminal equipment, nor represent the parties engaged in these activities. This does not preclude the possibility of exchanges of technical information between the manufacturer and the notified body.
2. The notified body and its staff must carry out the tasks for which the notified body has been designated with the highest degree of professional integrity and technical competence and must be free from all pressures and inducements, particularly financial, which might influence their judgement or the results of any inspection, especially from persons or groups of persons with an interest in such results.
3. The notified body must have at its disposal the necessary staff and facilities to enable it to perform properly the administrative and technical work associated with the tasks for which it has been designated.
4. The staff responsible for inspections must have:
 - sound technical and professional training,
 - satisfactory knowledge of the requirements of the tests or inspections that are carried out and adequate experience of such tests or inspections,
 - the ability to draw up the certificates, records and reports required to authenticate the performance of the inspections.
5. The impartiality of inspection staff must be guaranteed. Their remuneration must not depend on the number of tests or inspections carried out nor on the results of such inspections.
6. The notified body must take out liability insurance unless its liability is assumed by the Member State in accordance with national law, or the Member State itself is directly responsible.
7. The staff of the notified body is bound to observe professional secrecy with regard to all information gained in carrying out its tasks (except *vis-à-vis* the competent administrative authorities of the Member State in which its activities are carried out) under this Directive or any provision of national law giving effect thereto.

*ANNEX VII***MARKING OF EQUIPMENT REFERRED TO IN ARTICLE 12(1)**

1. The CE conformity marking must consist of the initials 'CE' taking the following form:



If the CE marking is reduced or enlarged, the proportions given in the above graduated drawing must be respected.

2. The CE marking must have a height of at least 5 mm except where this is not possible on account of the nature of the apparatus.
3. The CE marking must be affixed to the product or to its data plate. Additionally it must be affixed to the packaging, if any, and to the accompanying documents.
4. The CE marking must be affixed visibly, legibly and indelibly.
5. The equipment class identifier must take a form to be decided by the Commission in accordance with the procedure laid down in Article 14.

Where appropriate it must include an element intended to provide information to the user that the apparatus makes use of radio frequency bands where their use is not harmonised throughout the Community.

It must have the same height as the initials 'CE'.

Joint Declaration of the European Parliament, the Council and the Commission

The European Parliament, the Council and the Commission recognise the importance of the requirement relating to the prevention of harm to the network or its functioning which causes an unacceptable degradation of service taking into account in particular the need to safeguard the interests of the consumer.

Therefore, they note that the Commission will carry out a continuous assessment of the situation in order to evaluate whether that risk occurs frequently and, in such a case, to find an appropriate solution in the framework of the Committee acting in accordance with the procedure laid down in Article 15.

Such a solution will, where appropriate, consist of the systematic application of the essential requirement provided for in Article 3(3)(b).

Furthermore, the European Parliament, the Council and the Commission state that the procedure described above applies without prejudice to the possibilities foreseen in Article 7(5) and to the development of voluntary certification and marking schemes to prevent either the degradation of service or any harm to the network.

11

Declaration of Conformity

**BREITLING SA
P.O. BOX 1132
2540 Grenchen
Switzerland**

declare under our own responsibility that the products

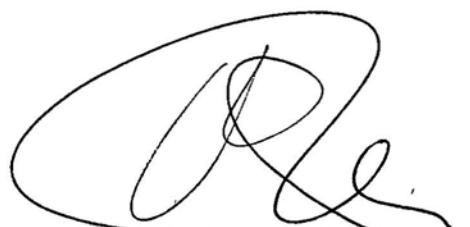
Breitling Emergency Ref.76321

Breitling Emergency Mission Ref.73322

to which this declaration refers conforms with the relevant standardizing documents EN 300 152-2 and ETS 300 683.

According to the regulations in Directive 1995/5/EC.

Grenchen, Sept.1st, 2006.



**T.Schneider
President**

14

INTERNAL DOCUMENT

NOTICE

TO ALL TELECOMMUNICATION BEUROU BRANCHES

2006/07/18

The portable rescue radio transmitter for airplanes of watch type has been approved to use in Japan to 2 of the number of 40th of the clause of 1st of the article of 2nd of the radio law enforcement regulations.

To minimize the search-and-rescue operation due to misuse of this unit, handling procedures were set in attaching sheet.

All radio inspectors should obey this notice.

REGARDS

**DIRECTOR of TELECOMMUNICATION BEUROU
MINISTRY of INTERNAL AFFAIRS and COMMUNICATIONS**

Attaching Sheet

1. Handling Procedures in TELECOMUNICATION BEUROU

- (1) The portable rescue radio transmitter for airplanes is approved for aviation use only.
- (2) The portable rescue radio transmitter for airplanes is not classified as ELT but supplemental equipment for rescue operation.
- (3) The portable rescue radio transmitter for airplanes should be registered into airplane radio equipment.

2. The following notifications should be informed to the applicant who wants to register the portable rescue radio transmitter as the airplane radio equipment.

- (1) Do not use transmitter unless aeronautical emergency condition.
- (2) When misuse it, the transmitting signal should be ceased immediately by proper action and report to the search-and-rescue organization and a communicating-station of TELECOMUNICATION BEUROU promptly.
- (3) In case of transfer or abandonment of this equipment
 - A. When transferring this equipment to a stranger
 - a. Do a change procedure by the regulation in the article of 17th of the law.
 - b. Notify the stranger that this equipment is the radio equipment which needs the license to operate it.
 - B. When disposing of this equipment
 - a. Do a change procedure by the regulation in the article of 17th of the law.
 - b. It tries the right way to be impossible to transmit the signal as it removes the battery of this equipment.